

**HAROLD CHERNISS
SELECTED PAPERS**



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EDITED BY

LEONARDO TARÁN



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PREFACE

On the occasion of Professor Harold Cherniss' seventieth birthday on March 11, 1974 and of his retirement from the Faculty of the Institute for Advanced Study (Princeton, N.J., U.S.A.), it occurred to Professors Otto Neugebauer and David Pingree of Brown University and to myself to honor him with the publication of his "*scripta minora*". Of the forty-one papers collected in the present volume all but one (No. 2: "Ancient Forms of Philosophic Discourse") have been published previously, and I should like here to thank the original publishers for granting permission to reprint the articles and reviews by Professor Cherniss; individual and detailed acknowledgements are made on the first page of each item. I have thought it best to arrange the papers systematically rather than chronologically, but in any case the bibliography at the end of this volume will facilitate a chronological rearrangement, if any reader desires it. It is a pleasant task to thank my colleague Professor Paul Kristeller for his interest and help in bringing this project to fruition and Mr. T. A. Edridge of the firm E. J. Brill. I am also grateful to Mrs. Carol C. Nielsen for preparing the typescript of the index.

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Leonardo Tarán

THE BIOGRAPHICAL FASHION IN LITERARY CRITICISM

SEVERAL YEARS ago a professor of English literature was widely acclaimed for having made an important discovery in his field of research; he had found in certain English archives the record of sale of a house belonging to John Milton. This may seem like a parody of what I call the biographical fashion in literary interpretation rather than like a fair example of that fashion; but I suspect that few professors of Greek literature see anything comic in their scholarly debates concerning the number of Euripides' wives, the question of Sophocles' indictment of his son, Iophon, and the reasons for Aeschylus' removal from Athens. None of these questions, however, affects the works of these poets or our understanding of them. Neither has the discovery in the English archives elucidated a single word or line in the writings of John Milton; and yet that discovery, far from being taken lightly by any of the journals that announced it, was treated by all of them as an addition to our knowledge of the history of English literature. It is a detail added to our knowledge of the life and movements of an English author; and it is this that made the discovery impressive. It increases our knowledge not of any of the literary productions which make John Milton's name significant, but of the man himself. This is the reason why the discovery aroused so much interest; and it is because of the implied attitude toward the relationship between the author and his works that the event epitomizes the biographical interpretation of literature.

History itself, political and social, as well as that natural human curiosity which at its basest is scholarly scandal-mongering and at its best authentic interest in the human personality, must be distinguished from the study of literature. Certainly, the historian cannot with impunity refrain from employing literary monuments as instruments in his task of reconstructing and interpreting the character and activities of a people or period. Since the proper use of such materials requires comprehension of the peculiar nature of artistic production and recognition of the way in which it differs from documentary and material evidence, the historian too must have the capacity to understand and interpret literature. Since every truly artistic production is a historical anomaly, however, the historian applies his literary comprehension with a purpose diametrically opposed to that of the philologist. He is concerned to comprehend the individuality of a work of art only in order that he may eliminate it and so extract for use as historical evidence those elements

¹ *University of California Publications in Classical Philology* 12, No. 15 (1943), pp. 279-292.

² Published in 1943 by The Regents of the University of California; reprinted by permission of the University of California Press.

which are not the private creation of the author. The student of literature, on the other hand, studying the same text is interested in it as a separate and unique phenomenon; his interest in the common elements which it contains is in turn a kind of interest of elimination, for he is concerned with the manner in which they have been individualized by the artistic form. The historian who uses Thucydides as a source for the study of the Peloponnesian War approaches the speeches with the problem put by Croiset: "The difficulty then is to know in what degree it is Pericles or Cleon, in what degree it is Thucydides whom we are hearing";¹ and his reason for drawing this distinction is his proper desire to recapture so far as possible the words of Pericles or Cleon. The attitude of the student of literature toward these same texts is admirably formulated by Mr. G. F. Abbott when he says: "The question of the authenticity of the speeches . . . does not enter into the present criticism, which is entirely concerned with their literary treatment. In shaping them as he thought fit the historian made them his own, no less than a dramatist does when he reproduces a historical speech, even though he may give, wherever possible, the very words which had been used. The authenticity of some of the speeches in Shakespeare's historical plays does not affect their significance as specimens of Shakespearean art."² The book of Thucydides purports to be a history; it is at the same time a work of literary art, even though its author claimed for it only the value of "usefulness" (I, 22). Consequently it presents an object of study to three different disciplines at least (for I omit the dubiously philosophical discipline of statecraft): the historian can use it as a source book of events, a repository of material from which, along with other evidence, to reconstruct a portion of the past; the student of historiography may treat it as an example of the recording and interpretation of human activity, criticizing the method which it exemplifies and testing wherever possible the accuracy of its records and the propriety of its interpretations; and the student of literature will study it not as a source of information about the Peloponnesian War or as an example of historical method but as a piece of literature, a drama in prose more dramatic than Hardy's *Dynasts*. This does not mean that one should approach Thucydides by one of these disciplines to the exclusion of the others; it does mean that they should not be confused, that one should understand that the study of history is not the study of literature even when the same text is the object of both studies and even though the historian, in handling that text, employs the methods of philology. Into the old and rancorous debate concerning the relationship of philology and history it seems to me unnecessary to enter further. The historian from his own point of view is justified in considering philology an an-

¹ A. Croiset, *Histoire de la littérature grecque*, Tome IV (Paris, 1921), p. 147.

² G. F. Abbott, *Thucydides, A Study in Historical Reality* (London, 1925), p. 184, fn. 1.

cillary discipline. That does not mean, however, that it is in essence ancillary to history or any other study, any more than mathematics is deprived of its essential autonomy by the fact that it is ancillary to all the natural sciences; and those philologists who in the desperation of self-defense have insisted that philology and history are identical have transgressed the most elementary requisite of their own study, the distinction of differences of meaning.

Philology is ultimately the study of literature for its own sake, and everything that the philologist studies as a philologist must be directed toward this as toward its final cause. His purpose is to comprehend and to interpret—that is, to help others comprehend—as works of art the individual productions which comprise the literature of which he is a student, in the case of the classical philologist the works of Greek and Latin writers. This general formula can hardly be challenged in its generality. What is given to the philologist is books, the significant expression of thought in artistic form; only the value of this expression and this form has created philology as a study necessary to the spiritual life of man, and only this value justifies the continued existence of that study as an autonomous discipline. The works of literature are not hypotheses which the philologist uses like the rungs of a ladder on which to climb to some higher principle; they are the *ἀνθρώποι ἀρχαί* themselves, the clear and direct comprehension of which is the final purpose of the student of literature. Not the identity and biography of the artist, then, but the unique personality of the literary artifact is the proper object of his study. When we proceed to specify this general formula, however, to designate the practical procedure by which it is to be realized in particular cases, all that we have excluded as distinct from the study of literature and extraneous to it seems to require acceptance again as essential to the appreciation of each and every particular work.

If a work of literature is the significant expression of thought, to appreciate the work is to understand the significance of the thought which it expresses; and how is this possible without intimate knowledge of the physical and spiritual environment, of the political, economic, and social conditions in which the thought was formulated and to which its expression responded? A work of art is produced at a definite time, in a definite place, and for an audience which itself has certain tastes and conventions, accepted ways of thinking, and a common store of knowledge and belief, all of which the artist takes for granted. These are as much the material with which he works as is the language in which his thought is expressed or the marble from which his statue is carved. Must one not, then, in order to understand a literary production, make oneself a member of that original audience to which it was addressed, learning what they knew, thinking and feeling as they thought and felt, and therewith acquiring the ability to slough off one's own environment,

knowledge, and tastes so far as they are at variance with those others? Really to appreciate a comedy of Aristophanes must one not first transform himself into an Athenian of the generation of Aristophanes? This should be the necessary conclusion of the historical interpretation; and Professor Wilamowitz drew it with *almost* complete thoroughness in the introduction to his edition of the *Lysistrata*. There, by way of explaining why no one had hitherto succeeded in making a satisfactory commentary on Aristophanes, he wrote as follows: "One first becomes properly aware of it (that is, of what besides mere jollity there is in the poetry of Aristophanes) when with a historically trained eye one sees how this mad sport affected on that single day the thousands who were its audience, a whole people that still constituted a single society in which everyone knew everyone else and each felt himself to be a member of the community. One must also know the conventions of this people, its deportment, its thought and belief in work and leisure, in sorrow and joy . . . And also it must have come to be felt as natural that Dionysus can appear as a comic character in his own sanctuary into which his holy statue has been brought in solemn procession, that his priest looks on and that the belief in the mighty god remains alive in the hearts of the people. Finally the poem that was designed for an hour must first be understood as that which it pretended to be at the moment, before it is considered with a view to its absolute worth. All this, however, was impossible so long as Athens was as good as unknown, so long as the earth covered the theater and the innumerable monuments of Attic art and Attic life. Today one need hardly say that no one who is not intimate with vase-painting can understand Aristophanes from within. . . . Similarly the events and personalities of Athenian history must have been so thoroughly studied that one can enter into the transitory mood of each year and so that the forms of public life, which were immediate data for the poet and audience, remain ever present for us too without special reminder."^{*}

The Hindus, who excelled in epigram, put this theory more succinctly in their proverb: "He who eats beef can never learn Sanskrit."

Furthermore, the conventions and habits of thought, the political and social environment of the artist were themselves the result of long development, were determined by the events, the thoughts, the people that preceded them, and cannot be apprehended more than superficially without knowledge of these conditions whence they derived. Does not the rule of Aristotle hold here also: we know a thing only when we know its cause? The single literary artifact, too, did not spring ἀπὸ δυνάμεως ἀπὸ τέχνης. The artist has employed, consciously or unconsciously, the form and expression of a definite tradition, and even his deviations from these and his innovations are intelligible only to those who know the

^{*} *Aristophanes, Lysistrata erklärt* von U. von Wilamowitz-Moellendorf (Berlin, 1927), p. 5.

course from which he has deviated. A long series of modern studies testifies to the assumption on the part of Hellenists that only knowledge of the origin and development of the form of comedy can explain—or rather, as they seem to feel, excuse—the position of the parabasis in the plays of Aristophanes.⁴ So, in order to understand the structure and essence of Greek tragedy and comedy it is thought to be necessary to discover the original form of Greek drama whereby will be exhibited, as Kranz has put it, “the truly constitutive element of these artistic productions, the character which decisively determined their development.”⁵ The appreciation of a piece of literature, then, requires not merely the reconstruction of the environment in which it was produced, the ability to transform oneself into a contemporary of the author, but also historical knowledge, as complete as may be, of the processes by which all the elements of that environment were produced and of the origin and development of the artistic form in which the author has expressed his thought.

Yet even this does not suffice. The environment, physical and spiritual, the language and the traditional artistic form, developed to the point at which the artist found them, were there for innumerable men to use; but the work of art itself was produced by only one among all these men. To him alone, the individual author, is due the artifact in its individuality; and since it is the product of an individual personality, since as effective influences and as significant constituents of the product all the elements of environment, convention, and tradition have been distilled through this personality which has gradually assimilated them to itself, the work of art can be understood and appreciated only as a moment of the personality which created it, a photographic exposure of a single, irretrievable instant in the organic development of the artist. The necessary consequence of this conception of literature too was drawn for philology by Professor Wilamowitz in the introduction to his study of Plato.⁶ “The philologist,” he there says, “is once for all an interpreter, but not interpreter of the words alone. Them he will never completely understand if he does not understand the soul from which they come. He must be the interpreter of this soul also, for, since the whole art of biography is founded on interpretation, biography is, in the true sense of the word, the work of the philologist, only raised to a higher power. Yet the task stands no higher than to understand how this man has come to be, what was his intention, his thought, his effect.” And a little later, in generalizing his own method in this book, he says: “The biographer proceeds from work to work, from interpretation to interpretation, always seeking the author behind the book. If a human being stands out

⁴ See the résumé by Harsh, *T.A.P.A.*, Vol. LXV (1934), pp. 178–179.

⁵ W. Kranz, *Stasimon* (Berlin, 1933), p. 1.

⁶ U. von Wilamowitz-Moellendorff, *Platon* (Berlin, 1919), Bd. I, p. 4.

whom we can recognize as such, if the individual features unite themselves into a single portrait which as a unit is credible, the task of the philologist is accomplished." The study of any literary work, then, must be based upon a study of the author's biography. In that biography the proper place of this work must be determined; only as an element in the biography can the work be understood. From this point of view, however, any and every detail of information concerning the activities, experiences, and habits of the author is of importance, since it is from the accumulation of these details that his biography must be constructed. The slightest external incident may have precipitated the mood which caused the poet to write a particular piece or may have been the impetus to a development of character by which the nature of all his subsequent work was determined. Even the sale of Milton's house, the number and character of Euripides' wives may have been important factors in the lives of the artists and so in the nature of their literary productions. As such details increase one's knowledge of the author himself, so even the student of literature, who is interested primarily neither in social, cultural, or political history nor in the personal history and psychology of this human individual, must address himself to these details, since it is only in the light of the author's biography that the author's productions can be adequately understood.

Without questioning the nobility and the psychagogic advisability of making the scholarly ideal as lofty and rigorous as possible, and even though subscribing to the doctrine that no detail of knowledge is useless or negligible, one may still properly wonder whether the requirements set up by the theories of literary interpretation previously outlined do not justify despair in the strongest and most ambitious spirits. Even a Wilamowitz, with all his knowledge of vase painting, Greek institutions, and Athenian history, cannot think and feel as did a contemporary of Aristophanes and could not do so were the monuments for study at his disposal a thousand times as many as they are. *Knowing* that Dionysus was a god to those who still delighted in his ridiculous antics upon the stage, and *feeling* that he is a god even while enjoying him as a clown—between these two states is a gulf that no erudition can bridge, a gulf not due to time and the absence of material evidence. It is most probable that for Professor Wilamowitz the thoughts and feelings of his own contemporaries in England were equally unassimilable when they, staunch supporters of throne and constitution, met with hearty laughter and loud applause—and without any consciousness of incongruity—the mockery of the House of Peers in *Iolanthe*, the parody of the royal prerogatives in the great duet of the *Gondoliers*, and the satirical lèse-majesté in the denouement of the *Pirates of Penzance*. In the case of ancient literature there is not adequate material to enable the student to gain even a fairly complete *theoretical* knowledge of the environment in which were pro-

¹ *Ibid.*, p. 8.

duced most of the works with which he is concerned; to believe that one can know the events and personages of Athenian history so intimately as to be able to detect the transitory mood of each year is to deceive oneself by taking for objective truth the tenuous phantoms of historical reconstructions. Yet quite apart from the practicality of this requirement, theoretical knowledge, however exact and complete, is not the immediate perception which only those can have who are themselves part of this environment. Furthermore, if the work of art can be properly understood only in this environment and from the point of view of the original audience, then it is a hindrance rather than a help to know the historical processes by which were developed the environmental complex and the artistic form, for in that environment and in the emotional and mental constitution of that audience the negative characteristics are factors as essential as the positive ones. It is certain that few if any of the original audience had this kind of knowledge, and it is at least highly improbable that the author himself knew the history of his art and was conscious of the place of his own work in that development. At any rate, as a means of reconstructing the environmental complex this method not only suffers all the disabilities already mentioned in connection with the recovery of the period directly from its own monuments, but it also has to assume the object of its investigation, knowledge of that complex itself. When Professor Wilamowitz asserts that a knowledge of vase painting is essential for comprehending Aristophanes, he forestalls the objection that this vase painting represents principally the life of the generations preceding the appearance of Aristophanes by the statement that in essentials the life of his generation had altered very little.* This comparison itself, however, implies a knowledge of the environment of Aristophanes based upon evidence independent of the very vase painting which was asserted to be indispensable for understanding that environment. The study of origins and development, social, political, and literary alike, consists in establishing hypothetical connections among events or objects, the evidence for the existence and nature of which does not itself rest upon these hypotheses and the knowledge of which, being the premises from which the method proceeds, must always be more certain than any conclusion which can be drawn concerning their relationships. Moreover, as applied to literature itself this method considers the work from the point of view of neither artist nor audience. The poem or play becomes a single stage in a hypothetical historical development in which the author is only an accident or at most an agent of forces which transcend him and of which he is unconscious. The justification of this kind of literary history, its assumptions, and its limitations, need not be discussed here; it is enough to say that it is not concerned with the understanding and appreciation of any single literary production as such but with relationships and connections which come to be taken for

* *Aristophanes, Lysistrata*, p. 5.

literature itself, whereas they are external to the essence of any particular piece of literature whatsoever. As an approach to literature it runs the risk of becoming the kind of method which has been characterized as "consisting in this: to speak not of the object but of the causes, not of the essence but of the relationships; not to interpret the works, but to investigate the material, the environment, the influences; a method which ever remains in the sphere of the preliminary, the irrelevant, the extrinsic, and reduces true scholarship to erudition in what is not worth knowing."

To approach the literary work by way of the personality of the artist seems to be a more reasonable method, for in any artistic production this is the factor which is most important, in which all the others are subsumed, and through which they become operative. To this insight, I take it, is due the present-day popularity of the biographical method in the study of literature; if the work of a man must be interpreted as a manifestation of his personality, then we must address ourselves to the history of that personality, and this is biography. The origin and environment of the man, his associates, activities, and experiences, these are the determinants of the personality that is the author; surely it is only by the discovery and synthesis of these factors that we can restore the author as a human being and understand his works as the expression of specific moods and thoughts, the response to definite needs and influences. Nevertheless, even if the validity of this method be granted, its practicality is strictly limited. The *Iliad* and *Odyssey* we should have to abandon altogether; we have no knowledge of their author or even of the approximate date of their composition. And how many works of Greek literature could we hope to understand, if this were the sole means of understanding them? The champion of the biographical method in the interpretation of classical literature, Wilamowitz himself, asserted that "for no Greek can we write a true biography, a history of the development of the individual within his environment."¹ Even where we have a morsel of knowledge concerning the author's activity or experience, it is usually the merest conjecture by which this has been connected with some tendency or element of his literary expression, and yet it is this connection itself which is the point at issue. So, for example, the fact that Plato left Athens for a trip to Syracuse in 367 cannot explain the difference in style between the first and second parts of the *Theaetetus*, even if it be granted that the composition of this dialogue is correctly dated in the year or two immediately preceding his departure. This explanation itself rests upon a critical assumption of a nonbiographical nature, namely that the second part is in an unfinished state, and requires a further

¹ Quoted from E. B. Curtius (*Die literarischen Wegbereiter des neuen Frankreich*) by J. Körner, *Neue Jahrbücher f. d. klass. Altertum*, Bd. XXV (1922), p. 175.

² U. von Wilamowitz-Moellendorf, *Euripides, Herakles* (Berlin, 1889), Bd. I, p. 1; cf. *idem*, *Platon*, Bd. I, p. 6.

hypothesis to explain why, if this is so, Plato failed to finish it after his return." Since the connection between Plato's departure and the *Theaetetus* is unknown, the knowledge of the date of his departure cannot facilitate our understanding of the dialogue.

Worse still, the validity of the method is itself dubious, for it is a method which rests upon the tacit assumption that the sum of biographical incidents constitutes the personality and that the essential meaning of the artistic expression can be identified with the environment and influences which have coincided to form a given moment in the personality of the author. This assumption is identical with Taine's theory which would make of the study of literature a kind of psychophysical mechanics and against which even his admirer, Zola, protested that as soon as the spirit, the individual personality, strikes where and when it will, all influences are merely accidents, the results of which one may study and explain but which act upon a natural element that is essentially free and that has not yet been reduced to any law." Since the human individual is not a mechanical combination of events and influences, no reconstruction, however complete, of the external incidents of a man's life can reproduce or reveal the essence of the man himself. There is no such thing as an "influence" in the abstract, and any particular "influence," of tradition, of environment, or of personal experience, exists only in the individual influenced and is determined by his personality, which is passive only in grammar and in histories of literature but in fact is the active element in a complex in which the brute event is the passive material that gains form, significance, and efficacy only according to the way in which the particular individual fashions it. Even a phrase "borrowed" by one poet from another does not have in the new poem the same significance that it had in the old one; and merely to identify the source whence the author "borrowed" it is not even to begin to understand what it means in the context of the new production. Students of literature have given too little heed to the trenchant remark that it is not important what the poem is made out of but what it is made into; and so too the external incidents of the author's life have meaning only as they are assimilated to his personality, and literary significance only so far as they have been transmuted by that personality into artistic form.

That the neglect of this fact renders the biographical method invalid has not gone unrecognized by certain critics who have understood that no personality can be comprehended by a compilation of isolated events and further that as an operative artistic entity it is manifested only in the artistic product. One group, the circle of Stefan George, accepting

²¹ U. von Wilamowitz-Moellendorf, *Platon*, Bd. I, p. 510.

²² E. Zola, *Mes Haines, M. H. Taine, Artiste* (Paris, Bibliothèque Charpentier, 1902), p. 227.

this axiom and identifying the artist with his work, has sought to reconstruct the figure of the author's personality in accordance with the "inner form" which they reach admittedly from his work alone but by a kind of intuition. "The works," says Gundolf in laying down the programmatic principles of this school, "are not the tokens which indicate the life [of the artist] but the bodies in which that life is incarnate. . . . One has no scientific justification for investigating the life of the great artists outside of their art; nay, there is no possibility of doing so, for what is commonly called the life of an artist and more modernly his experience has from the very first been assimilated to his art and is the same impulse and force as his work."¹³ From members of this circle have come a number of studies of ancient authors, notably works on Plato by Singer, Friedemann, and Hildebrandt and on Posidonius by Karl Reinhardt; and these have exercised a large influence upon scholars in this country, most of whom are unaware of the tenets of the cult on which these constructions are based. For it is a cult of a semimystical kind, the object of whose reverence is the "heroic individual." With the nature and beliefs of this circle, however, I am not here concerned, but only with the elements of its method. The intuition which discovers in the writings of an author the "natural law" and "inner form" of his personality is proof against all objections, logical and philological; but, while one must admit that a certain native insight, call it direct intelligence or intuition as you please, is required for understanding any text, it is, all the same, a vicious circle to intuit the nature of the author's personality from his writings and then to interpret those writings in accordance with the "inner necessity" of that intuited personality. Moreover, once the intuition of the individual critic is accepted as the ultimate basis of all interpretation, the comprehension of a literary work becomes a completely private affair, for the intuition of any one interpreter has no more objective validity than that of any other, and each interpreter lays himself open to the *peritropé*, like Protagoras in the *Theaetetus*. Yet in this regard the circle of George differs from most modern literary interpreters only in being conscious of its method, systematic in applying it, and outspoken in advocating it. Other scholars, not of this school, tell us that Plato's works must be comprehended as expressions of his life because he always continued to develop;¹⁴ that Sophocles had the natural gift of remaining unaffected by anything foreign to his own nature and that the instinctive assurance of the characters of his dramas was an endowment of his own ego;¹⁵ that Euripides felt himself more strongly impelled than Sophocles to take a definite attitude toward the actual problems of his country just because he took no active part in political

¹³ F. Gundolf, *Goethe* (Berlin, 1925), p. 2.

¹⁴ U. von Wilamowitz-Moellendorf, *Platon*, Bd. I, p. 6.

¹⁵ Max Pohlenz, *Die Griechische Tragödie* (Leipzig und Berlin, 1930), Bd. I, p. 160.

life," and that he was conscious of his own individuality and so felt it his highest duty to himself and his people to cherish that individuality." Such statements refer only to the personality which the critic's intuition has seen in the author's works; they have no other authority, and they provide no means for understanding the text which is not in the texts themselves; they are the results of interpretation and cannot be used as the basis of interpretation without falling into a vicious circle.

To this extent Gundolf's contention is correct, that the artist *quâ* artist exists only in his artistic productions; one need not follow him any farther to see that biography is nothing to the student of literature, to whom the only thing of significance in the life or personality of an author is his actual literary work. The potential poet may be a proper subject for psychological investigation, but the concern of the philologist is the actual poet and he is identical with his poems. So we are brought back to the texts themselves. If, then, we can never appreciate them as the original audience did and if, again, the reconstruction of the author's biography cannot lead us to understand them, are we to say that true understanding of a work of art is impossible? Consider first, for a moment, what reason there could be for studying a work which had no meaning except for a single audience in a single spot at a single moment in the past! The historian interested in the nature of that audience might use such a work, but only as a means of understanding the audience and without concern for the work itself. Only a madman would even wish to transmute himself into a member of that audience in order to appreciate what could have no meaning for men at any other time or place. If, again, a work of art should have significance only as a manifestation of an individual personality, it would be of interest only to a psychoanalyst. No one else would bother to read Sappho's poems, if they were only exhibits in the individual history of a neuropathic case; but her poems remain unaffected by the question of her personal virtue, which for a century scholars have debated with blind ferocity as if the import or beauty of her poetry depended upon their conclusions. One among these scholars, the most authoritative champion of her "good name," confides in us that the poetess had "an unquenchable intensity of feeling, a yearning of which she herself need not have been conscious."²⁶ If she need not have been conscious of her feeling in order to write, still less need we have knowledge of her private life in order to understand her writing; and, if she was fully conscious of what she was feeling, then in her writing we have her most exact expression of what she intended to say.

When one reads a poem of Sappho's and reads it as a poem, one is

²⁶ *Ibid.*, p. 168.

²⁷ *Ibid.*, p. 164.

²⁸ U. von Wilamowitz-Moellendorf, *Sappho und Simonides* (Berlin, 1913), p. 78.

interested primarily neither in Sappho of Lesbos nor in the particular audience to which her poems were originally addressed; one has no desire to transmute himself into a member of her circle or to gather psychological data concerning the author, but one does expect to find the poem itself directly significant. That this expectation need not be futile is due solely to the fact that a work of art exists independently of its author and of the accidental circumstances of its production, that its artistic qualities are entirely contained within itself and are not to be explained by anything outside of the work.¹⁹ This alone is the reason that it can be understood and appreciated; it is only for this reason that it is worth considering at all, for this independent existence makes possible the direct approach of each individual to the work and makes this direct approach the only possible way of comprehension and appreciation. Those who have recognized the impossibility of attaining the point of view of the original audience or that of the author himself have tended to overemphasize the individualistic or relativistic nature of appreciation and to reduce interpretation to the anarchy of subjectivity. That appreciation of any work is ultimately an individual experience is certainly true; it is the chief reason why the study of art and literature remains ever new and ever interesting. Yet the same factor that enables each person to approach the work directly also limits the extent of the subjective element in interpretation. The term "universal," so often applied to a work of art, means not that that work is not a unique individual, but that it has significance for all men as men in all times and places, and this, we saw, is a possibility only if the work has independent existence. But the basis of this universal significance is a set of ideas, emotions, and values which thus far in the history of the civilized world at least have always been recognized as having validity beyond the arbitrary taste of any individual or the customs of any locality.

This is not a counsel of indolence. It does not mean that anyone, by reason of his humanity alone, can understand any literary work that is set before him, or that because it is a work of art with which he is concerned he need not study assiduously to acquire every instrument that may help him to comprehend the significance of the text before him. It means that one must never forget that his ultimate purpose is to understand and appreciate particular works of literature, that the one means of accomplishing this purpose is intelligent reading, and that all other studies are meant to equip one with this means. It is rather a counsel of austerity, for it means that one must learn to distinguish the essence from the accidents and to eschew the easy mechanical combinations that explain nothing.

The insidious danger of the biographical method lies in its assumption that the essence is merely a combination of accidents, that literature is an automatic by-product of external forces, whence comes its tacit con-

¹⁹ Cf. J. Körner, *op. cit.*, p. 168.

clusion that no literary work has autonomous significance. Such an attitude will have fatal consequences for the study of the classics, for all justification of that study depends finally upon the value of the literary monuments of Greece and Rome, not their value as source books for the historian, the antiquarian, or the psychoanalyst, but their value for men as human beings. We pride ourselves mightily on our "true historical sense," of which, says one famous modern classicist, "Lessing and Gibbon had scarcely a notion, for they thought that man in all ages is essentially the same."²⁰ Perhaps that is why the writings of Lessing and Gibbon can still be read with understanding today while the books of the new scholarship are antiquated after a decade. When the Hellenist no longer believes in man as *man*, he may as well shut his books, for he has confessed that he can never understand them.

²⁰ U. von Wilamowitz-Moellendorff, *Sappho und Simonides*, p. 8.

ANCIENT FORMS OF PHILOSOPHIC DISCOURSE

The invitation to deliver the first of the annual lectures named for George Boas was an honor too great for my human frailty to decline, although I was keenly aware that to accept the honor was to assume a responsibility too formidable for me to fulfill with any approach to adequacy. In excuse for the slightness of my contribution to Professor Boas and to you I can plead only that an exiguous beginning is not inappropriate for a series that will surely grow in importance from lecture to lecture: τὸ ἐν ἀρχῇ μικρὸν ἐν τελευτῇ γίγνεται παμμεγέθες.¹

It is not inappropriate either, I think, for this slight beginning to be a consideration of the forms of expression employed by early philosophers, though to philosophers this may seem at first to be a matter of antiquarian interest only and at best one restricted to the superficial accidents of that with which they are concerned. Things are not always what they seem, however; and hence the wonder that gives birth to philosophy.² The philosopher desires to know what is and why. If, as Aristotle held, he does so because this desire is natural to all human beings,³ the same reason may account for his desire to convey to others what he thinks he knows, even though this be the paradox of Gorgias that nothing, if it is, is knowable or, if knowable, can be made known by one man to another.⁴

The first of those whom we traditionally call philosophers were unaware of the specious or the real problem posed by this paradox of Gorgias. They assumed that they could know the real nature of the world and could convey this knowledge to others, who did not have it; and Anaximander and Anaximenes further assumed that they could convey it by means of a written book. Of these two books there remains to us only one certainly authentic quotation and that

¹ Aristotle, *De Caelo* 271 B 12-13: "What is in the beginning slight becomes in the end of immense importance".

² Cf. Plato, *Theaetetus* 155 D 2-5 and Aristotle, *Metaphysics* 982 B 12-21.

³ Aristotle, *Metaphysics* 980 A 21.

⁴ Cf. [Aristotle], *De M.X.G.* 979 A 12-13, 980 A 18-20 and B 17-19; Sextus, *Adv. Math.* VII, 65, 77, and 83-84.

a brief one from the book of Anaximander;⁶ but from ancient reports we know something of the content of both and know also that both were written in prose, which, if in the case of the former it contained some "rather poetical terminology",⁶ in that of the latter was simple and straightforward Ionic.⁷ The choice of this form of expression was a deliberate departure from literary tradition and one which matched the change in content from theogony to cosmogony, from genealogy to aetiology, from mythical to physical explanation; and though the latter was as highly speculative as the former and often scarcely less fanciful, its practitioners probably felt both it and the form in which they expressed it to be natural as distinguished from the supernatural and would have acquiesced in Aristotle's later designation of them as φυσιολόγοι or φυσικοί in contrast to θεολόγοι.⁸

Both the naturalistic orientation of these earliest philosophic writings and their form of expression in prose persisted in the expositions of such later philosophers as Anaxagoras and Diogenes of Apollonia, who came to be regarded as successors of Anaximenes.⁹ The form of philosophic discourse approved and striven for by this tradition may be taken as compendiously expressed in the sentence with which the latter of these, Diogenes, began his book. "In any discourse", the sentence runs, "I hold that one must begin by making the principle of it indisputable and the exposition simple and serious".¹⁰ The "principle of it", the ἀρχή, is here at once the first principle of reality and the point of departure for the discourse about it, even as "the constitution of the body" is stated by a

⁶ Anaximander, frag. B 1 (D.K.) = Simplicius, *Phys.*, p. 24, 18-20. Anaximenes, frag. B 2 (D.K.) is certainly not a direct quotation (cf. J. Longrigg, *Phronesis*, IX [1964], pp. 1-4 with bibliography of the controversy).

⁸ Theophrastus in Simplicius, *Phys.*, p. 24, 21-22 = I, p. 83, 8 (D.K.). Against Havelock's attempt to turn Anaximander into a poet cf. F. Solmsen, *A.J.P.*, LXXXVII (1966), p. 104.

⁷ Diogenes Laertius, II, 3 (p. 58, 5 [Long]) = Anaximenes, frag. A 1 (I, p. 90, 19 [D.K.]).

⁸ Cf. e.g. *Metaphysics* 1071 B 27 and 1075 B 26-27; H. Bonitz, *Aristotelis Metaphysica* II, p. 160 ad 1000 A 9.

⁹ Anaxagoras, frag. A 1 (II, p. 5, 4-5 [D.K.]) = Diogenes Laertius, II, 6 (p. 59, 10-11 [Long]) and frag. A 2 (II, p. 8, 3-4 [D.K.]); Diogenes of Apollonia, frag. A 1 (II, p. 51, 38-40 [D.K.]) = Diogenes Laertius, IX, 57 (p. 467, 14-15 [Long]).

¹⁰ Diogenes of Apollonia, frag. B 1 (D.K.).

Hippocratic author to be "the principle of medical discourse".¹¹ Discourse should begin with what is indisputably the first principle of its subject; the point from which it begins is not indifferent, as the goddess of Parmenides in some unknown context said it was.¹² There is implicit here as a reply to the thesis in which the paradox of Gorgias culminates the notion that knowledge of reality can be conveyed by discourse because, while it is only discourse that is communicated and this is different from the reality apprehended or known, still discourse can be given a form so correlated with reality as to be adequately representative or descriptive of it. A reply quite different in kind is possible, however; and before Gorgias it had been adumbrated by another Ionian, Heraclitus.

What I have translated "discourse" in the passages of Diogenes and the Hippocratic author is in their language "logos". This word has many meanings, among them discourse as articulate speech—the expression of reason in words, sentences, and arguments—and reason itself—reasoning as rational thought and reason as rational principle. Heraclitus began his book with the sentence: "Of this 'logos', true as it is, men prove to have no comprehension both before hearing it and once they have heard it, for, though all comes to pass according to this 'logos', they are as if without experience even while experiencing such things in word and fact as I set forth...".¹³ The "logos" that men hear is both the discourse of Heraclitus and the rational principle according to which all comes to pass and which, it is implied, men could or should have comprehended even before hearing his discourse. Such comprehension and consentience should follow according to Heraclitus from "listening not to me but to the 'logos'";¹⁴ and this "logos" is common to all men and accessible to all, though most men live as if they had a

¹¹ *De Locis in Homine*, chap. 2 (VI, p. 278, 14 [Littré]): φύσις δὲ τοῦ σώματος ἀρχὴ τοῦ ἐν ἱητρικῇ λόγου.

¹² Parmenides, frag. B 5 (D.K.), on which cf. L. Tarán, *Parmenides*, pp. 51-53.

¹³ Heraclitus, frag. B 1 (D.K.). In order not to prejudice the interpretation I omit the controversial *ἀεὶ*, since it was unclear to Aristotle whether it should be taken with what precedes or what follows it (*Rhetoric* 1407 B 14-18), though I feel sure myself that Heraclitus intended it to be taken with *ἔόντος*. How otherwise could he have thought it possible for men to have comprehended it before having heard it from him?

¹⁴ Heraclitus, frag. B 50 (D.K.).

private wisdom, divorcing themselves from their closest consort, and like sleepers retiring each into his own peculiar world.¹⁵ Heraclitus did not believe that men thus asleep would comprehend the "logos" merely by hearing a discourse. He had himself got that comprehension by examining himself,¹⁶ and others could achieve it only by being awakened to similar introspection. So his book, though itself the expression of the "logos", was meant to be not a conveyance of this "logos" into the minds of others but a means of shaking them awake to the discovery of it within themselves. For this his medium was Ionic prose but not the straightforward Ionic of Anaximenes; and the form was not the simple exposition or logical argument of Diogenes but paradoxical assertion, enigmatic aphorism, and even invective expressed in oracular sentences in which the very sound and rhythm of ambiguous words and of clashingly balanced antitheses arrest attention, induce perplexity, excite reflection, and suggest the meaning that they conceal. The "logos" of Heraclitus like the lord of the oracle in Delphi neither tells nor conceals but gives signs,¹⁷ signs that arouse him who hears to seek out for himself their significance,¹⁸ the nature that loves to hide itself,¹⁹ the unmanifest that is stronger than the manifest.²⁰ There were philosophical aphorisms before Heraclitus. It is not necessary to go for examples to India, where the Gymnosophists, as later Greeks said, philosophized in enigmatic apophthegms,²¹ for Heraclitus must have known some of those ascribed to the Seven Sages and certainly that which, inscribed on the temple of the lord of the oracle in Delphi, was to incite so much philosophical speculation and with which it was later common to associate his own, the precept "Know Thyself".²² These were disconnected apoph-

¹⁵ Heraclitus, frags. B 2, 72, and 89 (D.K.).

¹⁶ Heraclitus, frag. B 101 (D.K.). Cf. *J.H.I.*, XII (1951), pp. 332-334.

¹⁷ Heraclitus, frag. B 93 (D.K.).

¹⁸ Cf. Iamblichus in Stobaeus, *Ecl.* II, ii, 5 (II, pp. 18, 20-19, 7 [Wachsmuth]).

¹⁹ Heraclitus, frag. B 123 (D.K.).

²⁰ Heraclitus, frag. B 54 (D.K.).

²¹ Diogenes Laertius, I, 6; Plutarch, *Alexander*, chap. 64 (700 F-701 C): n.b. . . . δεινούς δοκοῦντας εἶναι περὶ τὰς ἀποκρίσεις καὶ βραχυλόγους.

²² Cf. Eliza G. Wilkins, "Know Thyself" in *Greek and Latin Literature* (Chicago, 1917), p. 13; O. Gigon, *Untersuchungen zu Heraklit* (Leipzig, 1935), p. 111.

the gms, however, and like the Pythagorean *Acusmata* or *Symbola*²³ became philosophically fruitful chiefly as the subject of later commentary and interpretation—or ingenious misinterpretation. The Heraclitean gnomic expression was employed later too, as by Democritus for example, but either sporadically or loosely connected as manuals of practical prudence after the fashion of Hesiod,²⁴ free of oracular enigma and with the meaning made explicit so that Cicero could contrast the styles of Heraclitus and Democritus as respectively the most and the least obscure;²⁵ and the direct imitations of Heraclitus exemplified by certain essays in the Hippocratic corpus,²⁶ lacking, as they do, the central motivation of his expression and preserving only the paradoxical form of it to clothe explicit dogma, illuminate with the clarity of contrast the peculiar suitability to his meaning of the form of his discourse that makes the “logos” seem to be expressing itself.

The opposite seems at first sight to be true of his opposite in doctrine also, Parmenides. To the modern philosopher or historian of philosophy or even to the literary critic no form would seem to be less appropriate to the discourse of Parmenides than the hexameters of Greek epic poetry in which it is expressed. To be sure, there had been a time when poetry was the accepted form of all address to an audience; and there are in earlier Greek poetry occasional passages that hindsight may view as philosophic, among the earliest one now seldom noticed, the speech of Zeus in the first book of the *Odyssey*²⁷ on what later came to be known as “the problem of evil”. There was gnomic poetry too; and Xenophanes, the rhapsode and poet, had used hexameters to attack Homer and Hesiod and men in general for their anthropomorphic and immoral conceptions of divinity.²⁸ There were poetical theogonies, Orphic

²³ On these cf. W. Burkert, *Weisheit und Wissenschaft* (Nürnberg, 1962), pp. 150-175.

²⁴ Cf. *Erga* 303-382 and P. Friedländer, *Hermes*, XLVIII (1913), pp. 603-616 = *Studien zur antiken Kunst und Literatur* (1969), pp. 300-311 on the *ὑποθήκαι* of Democritus.

²⁵ Cicero, *De Divinatione* II, lxiv, 133. On the difference between the styles of Heraclitus and Democritus cf. U. Hölscher, *Anfängliches Fragen* (Göttingen, 1968), pp. 146-148.

²⁶ Cf. especially *De Victu* I, 5-24 (VI, pp. 476-496 [Littré]) and *De Nutrimeto* 1-45 (IX, pp. 98-116 [Littré]).

²⁷ *Odyssey*, I, 32-43.

²⁸ On the *Περὶ φύσεως* ascribed to Xenophanes cf. Kirk-Raven, *The Presocratic Philosophers* (Cambridge, 1957), pp. 166-167.

perhaps and that imbedded in the choral poetry of Alcman,²⁹ and Hesiod's *Theogony* and his *Works and Days*, which later in Hellenistic times became the model of the didactic poetry then held in high regard.³⁰ It is an anachronistic retrojection, however, to say, as it has often been said, that Parmenides wrote in verse because, "if philosophic thought was to express itself in acceptable form, it had to use the only traditionally recognized form, that of didactic poetry".³¹ When Parmenides wrote, didactic poetry was *not* the only traditionally recognized form of expression for philosophic thought nor even a traditional form for it. Prose had been the vehicle of Anaximander, Anaximenes, and Heraclitus; prose had been used by Pherecydes for his pseudo-philosophic theogony or allegorical cosmogony³² and by Acusilaus for his "revised version" of Hesiod;³³ and, even if the *Silloi* of Xenophanes contain a fertile germ of philosophy, these hexameters did not constitute a traditional form of philosophic expression which Parmenides felt himself constrained to use. So different are those hexameters from his own in all but metre that he could scarcely have regarded them even a precedent, as some believe,³⁴ to justify him in putting his philosophy into recalcitrant verse, verse—be it noticed—that neither of his partisans employed in propagating his doctrine and method of argument, for both Zeno, his younger associate, and Melissus wrote in prose. A man may put into poetry whatever he has to say primarily for the irreducible reason that he is by nature a poet and so is not content or even able to express himself otherwise than in poetry; and then his subject and the models and traditions that he may use are all transmuted by the form into which

²⁹ For this cf. H. Fränkel, *Dichtung und Philosophie* (München, 1962), pp. 183-185, 290-291, and 359, n. 25; and M. L. West, *Class. Quart.*, N.S. XIII (1963), pp. 154-156.

³⁰ Cf. A. Körte, *Hellenistic Poetry* translated by J. Hammer and M. Hadas (New York, 1929), pp. 245-248; and Callimachus, *Epigram XXVII* (Pfeiffer) = *Anth. Pal.* IX, 507 with R. Pfeiffer, *History of Classical Scholarship* (Oxford, 1968), p. 117: "His (*scil.* Hesiod's) name was even a sort of programme for the new poetry...".

³¹ B. A. van Groningen, *Over Hellas en Hellenen* (Amsterdam, 1964), p. 64.

³² Cf. K. von Fritz, Pauly-Wissowa, *R.-E.* XIX, 2 (1938), cols. 2025, 57-2033, 21 and especially 2030, 18-2031, 2; 2031, 21-32; 2032, 51-59.

³³ Cf. H. Fränkel, *Dichtung und Philosophie* (München, 1962), pp. 395-396.

³⁴ E.g. Wilhelm Schmid in Schmid-Stählin, *Geschichte der griechischen Literatur* I, 1 (1929), p. 313.

he fuses them. This was the case with Empedocles and Lucretius, the authors of the two great philosophic poems of antiquity. It was not the case with Parmenides. Enough of his poem remains to show that poetry did not come easily or naturally to him, that he did not "lisp in numbers 'cause the numbers came", and fully to support the judgment of antiquity that his verse was poor and his discourse more prosaic than poetical.³⁵ Poetry, then, was no more a personally natural form of expression for him than it was a form to which he was constrained by tradition but was deliberately chosen as a means in itself of expressing something that he felt to be important in the doctrine that was being enunciated. Heraclitus had bade men listen to the "logos", which, being common, is discoverable by examining oneself as he had done. To Parmenides this is what we should call "subjectivism"; and he forbade it as the way of the ignorant, for men go astray just because the erroneous thought within them is guided only by their own helplessness.³⁶ The way to truth is no more introspection than reliance upon the senses but that which Parmenides takes "far from the way men wander";³⁷ and that is why the discourse is presented not as his own but as that of a nameless and impersonal goddess, to whom he travels and whose revelation is neither a vision nor an enigmatic oracle but an analytic exposition professing to constrain consent by its irrefragable logic, the law of reason and of being and so the universal and objective criterion of all thought. Transcending human discourse as it does, its expounder transcends humanity and therefore speaks the language not of mortal men but of gods—not prose, therefore, but epic verse, alien though the subject is to the gods of Homer and of Hesiod—and to the god of Xenophanes too—and recalcitrant though abstract logical argument is to their vocabulary and metre. The form of Parmenides' discourse is therefore itself an intimate part of its import. With verse he departed from the established form of philosophic expression in order to emphasize his rejection of its content and its method. It was his way of reasoning and his conviction of its constraining force, the express axiom that the laws of

³⁵ Cf. Plutarch, *De Audiendo* 45 A; Proclus, *In Platonis Parmenidem*, col. 665, 30-31 (Cousin³); and further H. Diels, *Parmenides Lehrgedicht* (Berlin, 1897), p. 5.

³⁶ Parmenides, frag. B 6, 4-6 (D.K.). For what follows cf. *J.H.I.*, XII (1951), pp. 337-338.

³⁷ Parmenides, frag. B 1, 27 (D.K.).

thought are the laws of being, that his followers preserved and developed but not his presentation of it as revelation and so not in poetry but in prose treatises.

If the form of his writing had any influence upon Empedocles, as its content certainly did, it was only in a secondary fashion, for Empedocles was essentially a poet himself. Even Aristotle, who at one time insisted that he was rather a φυσιολόγος than a poet and had nothing in common with Homer but metre,³⁸ at another called him "Homeric" and skillful in all the devices of poetic expression;³⁹ Cicero cited him for his "outstanding poem";⁴⁰ and Lucretius, who as a great poet himself is a more material witness than either, sang a special hymn of praise to his "resounding songs",⁴¹ the extant fragments of which are sufficient to confirm the Roman's testimony. What is not true of Parmenides has truly been said of Empedocles: his poetical form proves that notwithstanding existing tradition and models the poetical nature cannot help expressing itself in poetry.⁴² It is even more manifestly true of Lucretius. By his time, to be sure, Hellenistic didactic poetry was a recognized genre; and, what is more pertinent, he could look to Empedocles as a precedent, a model, and an inspiration. Yet not only was the prose-treatise by this time more than ever the established form of philosophic expression but what he put into poetical form was the teaching of a master who had vehemently rejected and condemned all poetry as a form of serious discourse. Cleanthes, the Stoic who himself wrote a famous Hymn to Zeus,⁴³ had maintained that the strict constraint of verse makes one clarify one's meaning;⁴⁴ but such notions were

³⁸ Aristotle, *Poetics* 1447 B 17-20.

³⁹ Aristotle, frag. 70 (Rose) = Diogenes Laertius, VIII, 57.

⁴⁰ Cicero, *De Oratore* I, 217.

⁴¹ Lucretius, I, 713-733. For the relation of Lucretius to Empedocles cf. F. Jobst, *Über das Verhältnis zwischen Lukretius und Empedokles*, München, 1907.

⁴² B. A. van Groningen, *Over Hellas en Hellenen* (Amsterdam, 1964), p. 60.

⁴³ S.V.F. I, frag. 537 = Cleanthes, frag. 48 (Pearson); cf. G. Verbeke *Kleanthes van Assos* (Brussel, 1949), pp. 235-251 and G. Zuntz, *H.S.C.P.*, LXIII (1958), pp. 289-308.

⁴⁴ S.V.F. I, frag. 487 = Cleanthes, frag. 50 (Pearson) = Seneca, *Epist. Moral.* CVIII, 10; cf. S.V.F. I, frag. 486 = Cleanthes, frag. 49 (Pearson) = Philodemus, *De Musica*, col. XXVIII, 1-14 (pp. 97-98 [Kemke] = p. 202 [van Krevelen]). For the Stoic attitude towards style and poetry cf. M. Pohlenz, *Die Stoa* I, pp. 53-54, p. 163, p. 183.

merely ridiculous to the Epicureans,⁴⁵ who as in all things subscribed in this to the injunction of their infallible Master to avoid all poetry as a snare and a delusion and a childish amusement.⁴⁶ Lucretius uses as an excuse for the form in which he presents his seemingly bitter philosophy the way in which children are enticed by honey on the cup to drink a loathsome but healing medicine;⁴⁷ but in the same context he confesses that aspiration to poetic fame and the love of the Muses inspired him to sing on an obscure theme such luminous songs as his.⁴⁸ The whole poem is addressed to a single person, the praetor Memmius; and its purpose is to convert him to the philosophy of Epicurus and to the liberation from the fears of religion and mortality that was the promised result of such conversion.⁴⁹ There is no reason to doubt the sincerity of this specific purpose and to suppose, as some have done, that the appeal to Memmius is an afterthought or a mere literary device, though Lucretius in confessing his hope of fame for his work implies his expectation that others after Memmius will read it and like Memmius be converted. He may with reason have expected that each of these others would the more easily feel himself to be personally concerned because of the fervent personal address of the poet to a single auditor, his friend. For this too he could have found a precedent in Empedocles. His poem on natural philosophy is addressed to Pausanias like a private lecture to a single pupil, who is repeatedly exhorted to heed and to ponder the instruction being given to him⁵⁰ in an exposition, the structure of which is carefully marked for him in its anticipations, transitions, and pedagogical résumés and repetitions;⁵¹ and, though the poet professes to be inspired by the

⁴⁵ Cf. Philodemus, *De Musica*, col. XXVIII, 14-15 (p. 97 [Kemke]: οὐ καταγελαστότερον οὐ ῥᾴδιον εὐρεῖν); *Philodemos, Ueber die Gedichte, Fünftes Buch...* von C. Jensen (Berlin, 1923), pp. 35-36 and pp. 131-133: n.b. col. XIV, 20-24 on p. 35; P. Giuffrida, *L'epicureismo nella letteratura latina nel I secolo a. C.* (1940), I, p. 37.

⁴⁶ *Epicurea*, frags. 163, 229, and 568 (Usener); and especially Plutarch, *De Audiendis Poetis* 15 D and *Non Posse Suaviter Vivi...* 1094 E, *Heracleti Quaestiones Homericae* § 4 (p. 5, 2-5 [Oelmann]), and Cicero, *De Finibus* I, 72. The sage will not write poetry (Diogenes Laertius, X, 121 b).

⁴⁷ *De Rerum Natura* I, 936-950.

⁴⁸ *De Rerum Natura* I, 921-934.

⁴⁹ Cf. B. Farrington, "Form and Purpose in the *De Rerum Natura*", *Lucretius* edited by D. R. Dudley (London, 1965), pp. 19-34 (n.b. pp. 21 ff.).

⁵⁰ Empedocles, frags. B 1; B 17, 14 and 21 and 26; B 21, 1-2 (D.K.).

⁵¹ Cf. B. A. van Groningen, *La composition littéraire archaïque Grecque* (Amsterdam, 1960), pp. 221-222.

Muses⁵³ and lays claim to a divine source for his doctrine,⁵³ it is he who expounds it to the single pupil privileged to hear it. The form of this exposition and the intensity of its expression are certainly determined by the professed concern for a particular disciple and friend, and in this concern Empedocles too may have been as sincere as he sounds; but, even if he intended his instruction for Pausanias first of all, he just as surely intended that others should hear and heed it too. The other work of his of which fragments survive, the *Purifications*, is as explicitly and sincerely addressed to his fellow-citizens of Acragas; but it was recited with great success at Olympia by the rhapsode Cleomenes—and, it is said, in the presence of Empedocles himself.⁵⁴

The rhapsode had long been the chief entertainer and popular instructor in Greece; and he had established a ready and receptive audience for the rhetors and sophists who usurped his position and influence with the prose compositions that they substituted for his traditional recital of poetry. The reasons for the change of taste in this as in most cases are too complicated to determine with certainty or even to analyse neatly. Social and political circumstances, the practical importance of eloquence both forensic and deliberative in the expanding democracies, had something to do with it; and as much or more the Greek appetite for novelty, notorious from Plato to Paul. Whether the new sauce was a response to the appetite or the appetite to the new sauce, however, the service was the same; and this had no little effect in the end upon the nature of the meat. That is to say the sophists composed their works for recital to an audience, like a rhapsode reciting his own poetry, and to an audience, moreover, that paid for the entertainment and therefore expected value for money—or to prospective customers for whom the wares displayed must be made still more enticing. Hence the *ἐπίδειξις*, the Sophistic “show-piece” or “display”, of which there remain only two examples both by Gorgias, the *Encomium of Helen* and the *Apology of Palamedes*, but which was to beget a long line of descendants in the *διατριβαί*, lectures or sermons, from those of the wandering Cynic and Cyrenaic moralists and philosophasters to

⁵³ Empedocles, frag. B 3, 1-8 (D.K.).

⁵³ Empedocles, frags. B 4, 2-3 and B 23, 11 (D.K.).

⁵⁴ Dicaearchus, frag. 87 (Vehrl); Favorinus, F 18 (pp. 92-93 [Mensching] = frag. 49 (p. 206 [Barigazzi]); cf. H. Diels, *Kleine Schriften zur Geschichte der antiken Philosophie* (1969), p. 146.

those of the Second Sophistic, from Bion the Borysthenite to Dio Chrysostom and Aelius Aristides. The opportunity to impress and sway an audience is a dangerous temptation, the consciousness of ability to do so is insidious poison, the simplest way to do so is to make content subservient to form and delivery, and success in doing so is an infection of the audience that reinfects the speaker. Such success attended the sophists, especially the earliest and ablest of them, Protagoras and Gorgias. Neither of these was without philosophic antecedents or motive. Gorgias was reputed to have been a pupil of Empedocles,⁵⁶ himself according to Aristotle the inventor of rhetoric.⁵⁷ He was familiar with the Eleatic method of argument, which he used to prove that nothing exists or is comprehensible if it does exist or is communicable if comprehensible;⁵⁸ and Protagoras too had written against the Eleatic doctrine of Being⁵⁹ and had argued that whatever seems to be true to anyone is true for him when it seems to him to be so, though one thing may be more *useful* for him than another.⁶⁰ Both of them and not from ignorance had become sceptical of the old philosophy as a way to truth and so cynical about truth itself, for which they substituted the ephemeral appearance that can be induced by the dazzling form of verbal argument on either side of any question⁶¹ and by rhetorical persuasiveness, to which all else willingly succumbs.⁶² By the power of speech, which is form alone, to master society and the state, this was the purpose of sophistic discourse;⁶³ and its method was by virtuosity of presentation to captivate and bewitch its audience.

When Protagoras has delivered such a speech in the work of Plato's named after him, Socrates is made to say:⁶⁴ "Spellbound for a long time I still kept looking at him as if he would go on talking, and I was all eagerness to hear; and, when at last I per-

⁵⁶ Diogenes Laertius, VIII, 58 (pp. 419, 25-420, 4 [Long]); cf. Plato, *Meno* 76 C 4-8 with R. S. Bluck, *ad loc.* (*Plato's Meno* [Cambridge, 1961], p. 251).

⁵⁷ Aristotle, frag. 65 (Rose).

⁵⁸ Gorgias, frag. B 3 (D.K.), and see note 4 *supra*.

⁵⁹ Protagoras, frag. B 2 (D.K.).

⁶⁰ Protagoras, frag. B 1 (D.K.).

⁶¹ Cf. Protagoras, frags. A 20 and A 21 and B 6 a (D.K.); and Diogenes Laertius, IX, 52-53 (p. 465, 6-8 and 12-16 [Long]).

⁶² Cf. Gorgias, frags. A 26 and A 28 (D.K.).

⁶³ Cf. H. von Arnim, *Leben und Werke des Dio von Prusa* (Berlin, 1898), pp. 11 and 13.

⁶⁴ *Protagoras* 328 D 3-329 B 7.

ceived that he had really finished, I pulled myself together with an effort and said... 'I have been persuaded'". That was the usual effect of sophistic eloquence, but Socrates is not the ordinary auditor. He still finds one small difficulty—which Protagoras can easily resolve, for, no doubt he will briefly answer one little question unlike other orators from whom one might hear such long and eloquent speeches as his but who, when asked the smallest additional question, unable either to answer or to question themselves, just go on like smitten gongs resounding long and loud until a hand is laid upon them. With "little questions" such as the one now put to Protagoras, questions that bring all the talk back to its primary assumption,⁶⁴ a new form of philosophic discourse was unconsciously begotten by this Socrates, who wrote nothing and had no systematic doctrine to expound and who because he admitted his ignorance asked questions instead of giving answers.⁶⁵ Of this living discourse as he practiced it there is naturally no exact record, nor is there much reliable historical evidence about the details of his life; but of the effect of that discourse and of the personality, of which it was the expression, there is evidence, ample and impressive. The personality and the expression of it were inseparable to all who knew him, those whom he attracted and those whom he offended and repelled; and of the former many, however they understood or misunderstood him and whatever the direction of their thought and its profundity or shallowness, tried to emulate at least the form of his discourse and to present him in the act of practicing it. Men whom we know to have been as different in conviction and temperament as Aeschines and Antisthenes, originally a follower and imitator of Gorgias, Xenophon and Plato wrote what a generation later were already classified as "Socratic discourses" or "dialogues".⁶⁶ Save for references and fragmentary quotations and paraphrases there remain of these early Socratic discourses only those of Xenophon and Plato; and those of the former, besides betraying their dependence on Plato and other Socratics, show how even the form can be unintentionally distorted to travesty when imitated without the assimi-

⁶⁴ Cf. Xenophon, *Memorabilia* IV, vi, 13: ἐπὶ τὴν ὑπόθεσιν ἐπανῆγεν ἀν πάντα τὸν λόγον ὥδε πως.

⁶⁵ Aristotle, *Soph. Elench.* 183 B 7-8.

⁶⁶ Aristotle, *Rhetoric* 1417 A 20; *Poetics* 1447 B 11; frag. 72 (Rose), on which cf. E. Mensching, *Favorin von Arelate* I (Berlin, 1963), pp. 91-92 and A. Barigazzi, *Favorino di Arelate, Opere* (Firenze, 1966), pp. 204-205.

lation of meaning. The meaning and purpose of the form, its spirit and philosophic implications, Plato alone perceived, assimilated, and explicated, so that, begotten by Socrates as his way of philosophizing, as a form of philosophic discourse the dialogue was articulated and brought to light and maturity by Plato, who so successfully identified it with the personality of Socrates that Aristotle calls even a Platonic dialogue in which Socrates does not appear a discourse of Socrates.⁶⁷

Dialogue in this sense is not merely conversation, several people talking in turn to one another even if pertinently to a single subject or theme; nor is it the interchange of statement and counter-statement or debate or even every kind of formalized question and answer. Current abuse of the term makes it necessary to add that it does not mean in any sense bargaining or negotiation or the mere absence of physical violence in the presentation of demands by one party and the acceding to them by another. All of these were developed as literary forms—even the last in comedy, and statement and counter-statement in the elaborate responsion of tragic stichomythia; and some were employed for philosophic discourse also. So there was developed from the first of them the after-dinner conversation, the *Symposia*,⁶⁸ of which the earliest known to us are Plato's *Symposium* and Xenophon's imitation of it. The form may have had its literary origin in earlier accounts of a banquet of the Seven Sages, a much later example of which is extant in Plutarch's work by this name.⁶⁹ The very situation called for by this form made it appear natural and legitimate to introduce more or less casually connected talks on almost any subject; and from Plutarch's nine books of *Table-Talk* it can be seen how an author could take advantage of the liberty provided by this elastic frame to string together little essays on themes of all kinds—literary and historical, culinary and musical, antiquarian, scientific, and philosophical—and incidentally to display his own erudition. Epicurus used the form to deliver—characteristically in his own person—orthodox Epicurean *dicta* on miscellaneous questions.⁷⁰ Even Xenophon's *Sym-*

⁶⁷ Aristotle, *Politics* 1265 A 11, referring to the *Laws* (cf. 1265 A 8-17).

⁶⁸ Cf. Josef Martin, *Symposion* (Paderborn, 1931).

⁶⁹ Plutarch, *Septem Sapientium Convivium*; cf. Bruno Snell, *Leben und Meinungen der Sieben Weisen*³ (München, 1952), pp. 60-61.

⁷⁰ Usener, *Epicurea*, pp. 115-119; cf. E. Bignone, *L'Aristotele Perduto*, II (1936), pp. 544 ff.

posium is no integrated unit despite the fact that like his *Memorabilia* it has a single purpose, to defend Socrates against his later calumniators. Plato, however, contrived to transmute even this form into a philosophic dialogue, not only by introducing into it at crucial points the Socratic method but also by making of the successive speeches stages in an implicit dialogue that culminates in the express presentation of Socrates as philosophy incarnate. Conversation may become debate, that is the controversy of antithetical speeches in which each of two or more contenders in turn presents and defends his own opinion, case, or proposal. Such debate is represented in the earliest Greek literature extant, the first book of the *Iliad*, by the argument of Agamemnon and Achilles in the assembly of the Achaeans.⁷¹ The antithetical speeches of the Plataeans and the Lacedaemonians given by Thucydides in his second book⁷² and the genuine debate in the fifth book⁷³ between the Athenians and the Melians are both called "dialogues" by the critic, Dionysius of Halicarnassus;⁷⁴ but earlier than either of these and more pertinent as being the earliest Greek discussion of political philosophy presented in this form is the debate on the three kinds of government in the third book of Herodotus,⁷⁵ where after the three consecutive speeches in favor of democracy, oligarchy, and monarchy the audience adheres to the arguments of the last speaker. Such debates in rudimentary form can be found in the parable of Menenius Agrippa, the argument between the stomach and the other bodily organs;⁷⁶ in the argument of the mind with the senses, only a snippet of which unfortunately has been preserved from Democritus;⁷⁷ and in literary fable—Greek, Near Eastern,⁷⁸ and Oriental, in Aesopic literature and in the much more subtly elaborated Indian *Panchatantra*. Of the fully developed literary examples of such philosophic debate two that especially impressed the con-

⁷¹ *Iliad* I, 57-305.

⁷² Thucydides, II, 71-74.

⁷³ Thucydides, V, 84-113.

⁷⁴ Dionysius, *De Thucydide* § 37 (906) = p. 388, 8-10 (Usener-Radermacher); cf. H. Ll. Hudson-Williams, "Conventional Forms of Debate and the Melian Dialogue", *A.J.P.*, LXXI (1950), pp. 156-169.

⁷⁵ Herodotus, III, 80-82.

⁷⁶ Livy, II, 32, 8-12 and Dionysius Halic., *Antiq. Rom.* VI, 86; cf. W. Nestle, *Griechische Studien* (Stuttgart, 1948), pp. 502-516.

⁷⁷ Democritus, frag. B 125 (D.K.).

⁷⁸ Cf. M. L. West, *H.S.C.P.*, LXXIII (1969), pp. 118-120.

temporary audience and continued to echo through subsequent literature were the apologue of Prodicus, in which personified Vice and Virtue debated for the decision of the young Heracles,⁷⁹ and the debate in the *Antiope* of Euripides between the brothers Zethus and Amphion on the practical and the contemplative life.⁸⁰ To debate of this kind the Platonic Socrates objects: "If we oppose his speech with one of our own... and he replies with a speech... and then we rejoin with another, it will be necessary to count and measure the points that each has scored, and we shall need a jury to decide between us".⁸¹ This is what Plato calls ἀντιλογική, controversial disputation, instead of dialogue; but the essence of it to which he objects is not the length of the antithetical speeches, for these may be concise and may even consist of questions and answers, as in the method practised by the Eleatic Palamedes, Zeno,⁸² who is said to have devised an art of cross-questioning that by ἀντιλογία reduces the respondent to desperation.⁸³ Such eristic, based chiefly upon verbal ambiguity and contradiction and often mistaken for dialogue, as Plato says,⁸⁴ is embedded in the anonymous *Dialexeis* or *Twofold Arguments*;⁸⁵ but it is best exemplified by Plato himself, first in his hilarious and withering parody of it in the *Euthydemus*, where two sophists, absolute pancratiasts as they are ironically called, give a demonstration of their art at the request of Socrates ostensibly to exhort a young man to philosophy and really to show him how this false philosophizing differs from Socratic dialogue, and then more seriously in the "laborious game" that the old Parmenides in the work named for him consents to play⁸⁶ in order to give the youthful Socrates an example of the preliminary training that will enable him to deal with the arguments used against him in the earlier part of the work.⁸⁷ Philosophic discourse in question and

⁷⁹ Prodicus, frag. B 2 (D.K.) = Xenophon, *Memorabilia* II, i, 21-34. Cf. O. Gigon, *Kommentar zum zweiten Buch von Xenophons Memorabilien* (Basel, 1956), pp. 58-84; and W. Nestle, *Griechische Studien* (Stuttgart, 1948), pp. 403-429.

⁸⁰ Cf. Bruno Snell, *Scenes from Greek Drama* (Berkeley, 1964), pp. 82-98.

⁸¹ *Republic* 348 A 7-B 2.

⁸² Cf. *Phaedrus* 261 D 6-E 4, *Sophist* 225 B 8-10 and 268 B.

⁸³ Zeno, Frag. A 4 (D.K.) = Plutarch, *Pericles* iv, 5 (154 A-B).

⁸⁴ *Republic* 454 A.

⁸⁵ *Fragmente der Vorsokratiker* 90 (II, pp. 405-416 [D.K.]); see especially pp. 406, 27-407, 7; p. 410, 8-29; p. 413, 5-13 and 21-23; pp. 414, 28-415, 3.

⁸⁶ *Parmenides* 137 B 2.

⁸⁷ Cf. *Parmenides* 135 C 8-D 1, 135 D 7, 136 A 2.

answer is not restricted to controversial disputation of this kind, however. The pithy maxims or long dissertations—theological, metaphysical, and ethical—by which sages singly or in competition with one another reply to difficult questions or resolve enigmas and heroes victoriously pass tests of intelligence are common in the Vedic and epic literature of India.⁸⁸ A *joute d'énigmes* among Gymnosophists in reply to questions put by Alexander and another, more elaborate, among the Seven Sages in reply to the king of Egypt are given by Plutarch.⁸⁹ Great parts of the Upaniṣads are disquisitions of a sage in reply to questions of his pupil; and the whole of the *Bhagavadgita* is a divine revelation in the form of a reply by Kṛiṣṇa to the questions of Arjuna, to which in Greek literature the tractates of the *Hermetic Corpus* provide the most obvious and celebrated parallel. The work of Seneca's that in external form most nearly approximates a dialogue, the *De Tranquillitate Animi*, is in fact an uninterrupted disquisition in reply to Serenus, who in the introductory speech presents his problem and requests the aid and advice of Seneca to resolve it; and even Plutarch's dialogue, *Against the Stoics on Common Conceptions*, is a treatise or lecture given in reply to the question of a troubled young Academic who only occasionally interrupts it to ask supplementary questions.

None of these is dialogue in Plato's sense; and the last—the master being questioned by the disciple and answering his questions, instructing him and giving him knowledge, the profession of teachers time out of mind—is its very opposite, for it is a series of questions designed to *elicit* from the respondent knowledge of which in the beginning he was unaware, even if only clear knowledge of the ignorance that he had been mistaking for knowledge. Seneca tells his friend Lucilius: "I desire to transfuse into you all that I have learned, and I delight in learning something that I may teach it";⁹⁰ the Platonic Socrates says that wisdom cannot be decanted like liquid from the full vessel to the empty one or knowledge inserted into the mind any more than sight can be put into blind eyes.⁹¹ It can only be evoked or elicited from the mind that is awakened to

⁸⁸ Cf. G. Dumézil, *Mythe et épopée* (Paris, 1968), p. 62 and *Heur et malheur du guerrier* (Paris, 1969), pp. 76-77.

⁸⁹ *Alexander* lxiv, 701 A-C; and *Septem Sapientium Convivium* 151B-156 B.

⁹⁰ Seneca, *Epist. Moral.* VI, 4.

⁹¹ *Symposium* 175 C 7-D 7, *Republic* 518 C-D.

itself and turned to look steadily in the right direction. When Callicles has given a firm reply and defiantly asked whether Socrates does not agree, Socrates says: "No, and neither will Callicles, I think, when he contemplates himself aright".⁹² To make the respondent examine himself aright and so finally after relentless testing to come to agreement with himself, this is the purpose of Socratic questioning; and to this end it is designed. It is not easy to do, as Thrasymachus thinks it is⁹³ and Polus until he fails at the attempt;⁹⁴ but, as Cebes is made to say in the *Phaedo*,⁹⁵ when it is done well, those who are questioned about anything state the truth about it by themselves, which they could not do if knowledge were not inherent in them. In short, learning is reminiscence of latent knowledge, and the questioning in dialogue is a method of inciting, clarifying, and authenticating recollection; nor is an external questioner requisite to the procedure, for thinking is itself dialogue in which the soul assents and dissents in reply to the questions it puts to itself,⁹⁶ even as Socrates, when his interlocutors will not or cannot answer, or the Athenian Stranger in the *Laws*, when his could not plausibly be represented as participating in the reasoning, assumes both parts of the dialogue, questioning and answering himself.⁹⁷ Dialogue for Plato is an externalization of the process of thought, at once the form expressive of his philosophy and a model exercise in the method of thinking, which is reminiscence. It has been observed that the vivid Platonic character of the young Augustine's dialogues varies directly with the prominence in them of the doctrine of reminiscence and that these dialogues culminate not accidentally in his *Soliloquies*, the dialogue of Augustine with himself.⁹⁸

True dialogue is difficult to practice—as difficult as rational thought—and doubly difficult to represent; but, partly because of

⁹² *Gorgias* 495 E 1-2.

⁹³ *Republic* 336 C 2-6.

⁹⁴ *Gorgias* 462 B 1-463 E 2 and 466 A 4-467 C 4 (n.b. 466 C 6-E 2).

⁹⁵ *Phaedo* 73 A 7-10.

⁹⁶ Plato, *Theaetetus* 189 E 4-190 A 4 and *Sophist* 263 E 3-5; cf. A. E. Taylor, *A Commentary on Plato's Timaeus*, p. 178.

⁹⁷ Cf. *Gorgias* 506 B 6-507 C 7, *Protagoras* 353 C 1-357 E 8, *Laws* 892 E 5-893 A 7 and 893 B 4-894 B 1, where Clinias reenters the dialogue.

⁹⁸ Manfred Hoffmann, *Der Dialog bei den christlichen Schriftstellern der ersten vier Jahrhunderte* (Berlin, 1966), pp. 135-157; cf. especially pp. 143, 145, 147, 152-153, and p. 157.

Plato's success in this, the form, superficially understood as merely dramatic framework, gained a popularity not even yet entirely lost among philosophic writers, who put into it every kind of speculation, debate, treatise, and even commentary. A specious excuse for this they may have thought to find in the fact that Plato's own "dialogues", as they soon were indiscriminately called, are not entirely dialogue, for he often introduces, interrupts, or crowns the dialogue proper, though always clearly to subserve its purpose, by myths, or disquisitions, conversations or speeches, or examples and parodies of other forms, and some of his writings like the *Timaeus* and the *Menexenus* are not and do not profess to be dialogues at all.

Of the direct imitations of Plato's works we have the *Epinomis*, which is in fact a protreptic treatise written probably by Philip of Opus to be a supplement to the *Laws*, and the *Spuria*, mistakenly or accidentally included in the Platonic *Corpus*; but none of the dialogues written by Plato's more illustrious associates has survived. Concerning those by Aristotle, however, we have significant information especially from Cicero, who used them as models for some of his own.⁹⁹ They consisted of *prooemia* followed by continuous speeches in which each character developed his own doctrine or position, the speeches being antithetically arranged so as to present the case in support of a thesis and against it, with Aristotle in his own person presiding as arbiter of the debate and ultimate formulator of the truth of the matter. This is not dialogue at all but academic disputation, as it may have been organized and conducted in Aristotle's school. As a literary form it has the advantage that Cicero claims for it: it facilitates the unambiguous account of each doctrine represented¹⁰⁰—at least as the author understands it—and it enables him by developing refutation and doctrine in his own name to forestall any such questions about his position as those to which Plato's form of dialogue left scope about his. The "dialogues" of Aristotle were the philosophic discourse of his school on parade. His treatises are the form of that discourse at work, and in them the spirit of genuine dialogue can still be discerned, though

⁹⁹ Especially Cicero, *Ad Atticum* IV, xvi, 2 and XIII, xix, 3-4; *Ad Quintum Fratrem* III, v, 1. On the Aristotelian dialogue cf. R. Hirzel, *Der Dialog* I, pp. 275-276, 292-295, and 299; A. S. Pease, *M. Tulli Ciceronis De Natura Deorum* I, pp. 22-24; G. Zoll, *Cicero Platonis Aemulus* (Zürich, 1962), pp. 32-34 and 68.

¹⁰⁰ Cf. Cicero, *De Fato* I, 1.

dim and transfigured. Again and again the doctrines of his predecessors and common opinion are made to question and answer one another and are manipulated against one another in criticism and correction to have elicited and developed from them the true Aristotelian doctrine;¹⁰¹ and organized into pairs of antithetical positions as ἀπορίαι or problematical difficulties they are made the programme of the whole discourse of the *Metaphysics*. Even dialogue of this kind, however, is organized with Aristotle as arbiter and is a prefiguration of disputations among the schools, prefigured itself by the battle between the Giants of Materialism and the Olympian "friends of ideas" in Plato's *Sophist*.¹⁰²

It is out of such disputation among the schools that Cicero, taking Aristotle as his model, constructed his later philosophic "dialogues", choosing this form not casually or as an artificial vehicle for doxography but because it best expressed the course leading to his own final arbitrament, the ἐποχή or "suspension of judgment" and practical probabilism of the Sceptical Academy to which he subscribed.¹⁰³ The same philosophy accounts for the form of many of Plutarch's "dialogues".¹⁰⁴ Even those among them that are most elaborately constructed in emulation of Plato's work scarcely attempt genuine dialogue¹⁰⁵ but contain instead besides lively conversation such disputations, lectures, and exegeses as were carried on in Plutarch's school, where they are often explicitly situated. The whole of one of them is a reply to a book by Colotes, the Epicurean, which Plutarch reports as a lecture given by him at the request of one among his coterie to whom the book had just been read.

With the organized schools of philosophy the predominant form of philosophic discourse became the lecture, the treatise, and the disputation, whatever the dress in which these were clothed. The very word διάλογος, introduced into Latin by Cicero who translated or paraphrased it as "sermo et disputatio",¹⁰⁶ was soon applied even to certain writings of Seneca that differ from his *Epistles* not in

¹⁰¹ Cf. G. Verbeke, *Aristote et les problèmes de méthode* = *Symposium Aristotelicum* II (Louvain/Paris, 1961), p. 118, n. 22.

¹⁰² *Sophist* 246 A 4-249 D 5.

¹⁰³ Cf. P. L. Schmidt, *Gnomon*, XXXVI (1964), p. 834; A. Michel, *Collection Latomus*, CI (1969), pp. 610-621.

¹⁰⁴ Cf. K. Ziegler, *Pauly-Wissowa, R.-E.* XXI, 1 (1951), cols. 890, 64-891, 42; D. A. Russell, *Greece and Rome*, 2 Ser. XV (Oct. 1968), pp. 136-137.

¹⁰⁵ There is one such feeble attempt in *De Genio Socratis* 584 B-585 A.

¹⁰⁶ Cf. G. Zoll, *Cicero Platonis Aemulus*, p. 49.

form but only in length; and the word meant no more than "conversation" to Artemon, who defined an epistle as "one of the two parts of a dialogue".¹⁰⁷ True dialogue is not divisible into parts, and an epistle differs even from part of a conversation in that it allows the writer to develop his own train of thought without danger of interruption. This obvious but true observation of a modern scholar¹⁰⁸ was not made by the ancient critic, who did say, however, that long epistles are not epistles at all but treatises with salutations prefixed to them.¹⁰⁹ Without saying so he was accurately labelling the philosophic epistle. Aristotle's *Protrepticus*, an exhortation to philosophy written as a letter to Themison, King of Cyprus, and Crantor's essay on grief, addressed as a letter of consolation to Hippocles upon the death of his children, became the accepted models for treatment of these themes; and Crates the Cynic wrote a book of epistles, the reference to which indicates that these were fictitious letters on philosophic topics and probably interconnected.¹¹⁰ Seneca's *Epistles* to Lucilius, however, constitute the earliest example of a collection of letters composed as a paedagogical course in moral philosophy, a series of popular lectures in a form that enables the instructor to avoid the artificiality of a systematic treatise, to emphasize and exploit the friendship that prompts personal correspondence, and to use without immodesty the description of his own condition as an example and incentive for his pupil.

For the epistle as a form of philosophic instruction Seneca certainly found a precedent in the notoriety of the Epicurean letters, different as these were from his in character and motive. The epistles of Epicurus, while often treatises in content and structure, were not fictitious literary compositions but genuine letters addressed to particular persons in particular circumstances, though written in the expectation and with the intention that the recipient would share them with other members of the fellowship. This epistolary form was intimately related to the other forms that Epicurus gave his discourse and like them an appropriate and necessary expression of philosophy as he conceived it. He firmly believed his philosophy to be not just an intellectual method and systematic doctrine preferable to others but similar to them in

¹⁰⁷ [Demetrius], *De Elocutione* 223.

¹⁰⁸ R. Hirzel, *Der Dialog* I, p. 306.

¹⁰⁹ [Demetrius], *De Elocutione* 228.

¹¹⁰ Diogenes Laertius, VI, 98.

purpose, not just the best of many ways to love wisdom or approach truth, not a *search* for truth or wisdom at all but wisdom itself and the unique way of practicing and enjoying it. To this way with the success reserved for those who are immune from doubt he strove to make converts, founding and maintaining a genuine sect, the members of which were to be kept uncontaminated and untempted by any other school of thought and united to one another in personal and intellectual friendship by their unquestioning devotion to the master and his doctrine which would free them from all anxiety and thereby assure them all happiness. Nothing could better express or more effectively achieve this purpose than the personal letters that he continually addressed to the scattered conventicles and to their individual members to instruct the novice or stiffen the waverer or confirm the initiate, to resolve dissension, castigate heresy, and extol the example of the faithful, appropriately to the recipient and the occasion repeating, epitomizing, or explicating what he had written in the treatises, some of which were dogmatic, expounding the doctrine, others polemic, confuting and denigrating all other philosophers, and still others memorials to the orthodox heroes of the fellowship. Of these treatises, moreover, he made a longer and a shorter epitome and in addition a breviary of the authoritative doctrines, which like many of the letters themselves he bade the fellowship commit to memory.¹¹¹ Memorization of authoritative doctrine, this is his prescription for the disciples; and the wise man, who—he says—will lecture in public, though not voluntarily, will lay down positive doctrine with authority and will not be concerned with problematic questions.¹¹²

This is philosophy and its expression at the opposite pole to Socratic philosophizing and dialogue. Epicurus, condemning dialectic as delusive and its practitioners as perverters,¹¹³ and the Stoics, commending it as the means of securing victory in argument over an opponent,¹¹⁴ are both in fact talking about that kind of controversial disputation which the Platonic Socrates calls the origin of "misology", the hatred of discourse, akin to misanthropy and worse than it, for such disputation ultimately causes its practitioners to think themselves most wise in having discerned that

¹¹¹ Cf. Diogenes Laertius, X, 12 (p. 499, 23-24 [Long]); X, 35-37 and 83.

¹¹² Diogenes Laertius, X, 121 b (p. 551, 2-4 [Long]).

¹¹³ Diogenes Laertius, X, 31 and 8 (p. 509, 11-12 and p. 498, 6 [Long]).

¹¹⁴ Diogenes Laertius, VII, 47-48.

there is nothing sound or secure in any discourse or any subject.¹¹⁵ Lacking the true science of discourse,¹¹⁶ he says, they fail to see that the flaw is in themselves¹¹⁷ and that the purpose of genuine discourse is not to defeat an opponent or persuade an audience to accept a thesis but to discover the truth and convince oneself of its validity.¹¹⁸

Socrates forever testing and examining himself, this, said Epictetus,¹¹⁹ is the philosopher's genuine writing. Cicero, who after the death of his beloved daughter wrote a letter of consolation to himself, said near the end of his *Tusculans*¹²⁰ that he who is able to talk with himself does not need another for conversation; and Marcus Aurelius, thanking his teacher Rusticus for the lesson to refrain from the writing of theoretical treatises and protreptic speeches,¹²¹ made his little Stoic sermons to himself. Today, when cant is replacing articulate speech, "communication" made a substitute for meaning, and words like dialogue are debased to slogans, even philosophers may with profit remind themselves that the form of their discourse need not be irrelevant to what it expresses but may reveal the nature and process of their thinking and that genuine dialogue with another is impossible for anyone who will not engage his own soul in dialogue with itself, that dialogue of which the other is only the externalisation and embodiment. That of this Plato's dialogues provide a model for exercise in rational thought we can see more clearly and esteem the more justly who as pupils, companions, and friends have had and still enjoy the living experience of such another, the discourse of George Boas.

¹¹⁵ Plato, *Phaedo* 90 B 9-C 4 and cf. generally 89 D 1-91 C 5.

¹¹⁶ *Phaedo* 90 B 7, cf. 89 E 5-7.

¹¹⁷ *Phaedo* 90 D 3-7.

¹¹⁸ *Phaedo* 91 A 7-C 5.

¹¹⁹ Epictetus, *Diss.* II, i, 32.

¹²⁰ *Tusc. Disp.* V, 117.

¹²¹ Marcus Aurelius, I, 7; cf. R. Hirzel, *Der Dialog* II, p. 243, n. 2.

The History of Ideas and Ancient Greek Philosophy

Both "history" and "idea" are Greek words, though the meaning or meanings of the latter in Greek are so thoroughly different from what is intended by it in ordinary English that I prefer to avoid it except in its technical philosophical sense and to use instead "thought," "concept," or "notion." "History," however, is not only a Greek word; the conception which it is ordinarily meant to convey, the causal relations of events to one another and the investigation of those relations, is a Greek discovery or invention or, as some modern historiographers might prefer to call it if they were aware of its origin, a figment of Greek imagination and a manifestation of Greek prejudice in favor of neat arrangements and rational systemization.

From the sixth century B. C. Greek thinkers were obsessed by the desire to establish causal relations among all the entities and events of which they had cognizance; and this activity, its objects of whatever kind, and the resulting account which was supposed to represent the objective system or process were all called *ιστορία*. "Blessed is he," says Euripides, "who has learned this *ιστορία*, contemplating the ageless order of immortal nature."¹ The early

¹ Euripides, fragment 910 (Nauck); cf. for the use of *ιστορία*, Diels, *Dox. Graec.*, p. 102, n. 2, and Wyttenbach *Ad Platonis Phaedonem* 96 A (*Platonis Phaedon*, editio auctor [1830], pp. 256-57).

"philosophers," as we call them by retrojection of the term, were all "historians" in this sense, "investigators" not merely of cosmogony, inanimate physical processes, biology, and psychology, but also of anthropology and of social and political events, ancient and contemporary. Of their works we have only exiguous fragments and reports at second-hand or third; but evidence enough exists to show that even the Ionians, the earliest of the "pre-Socratics," were not exclusively "natural historians" or "physiologers" and that probably all—and certainly some—of them treated the physical origin of things as only the first chapter in their investigation of the causes of the world of men in which they lived. Did they, then, extend this investigation to the origins and the alterations of men's beliefs and opinions and attempt to construct a genealogy, to use one of their own metaphors,³ of thoughts and of the words which express thought and influence it in turn? Had they, in short, conceived the notion even in a crude and primitive fashion of what is here called "the history of ideas"?

Certainly they were keenly aware of the multiplicity and difference of human customs and opinions, the sort of diversity which in the physical world seemed to them to demand an explanation. Hecataeus of Miletus⁴ began his history with the statement that he was about to write the truth as he saw it, for the accounts given by the Greeks were many and absurd; and Hecataeus in turn was used by Heraclitus⁵ along with Xenophanes, Pythagoras, and Hesiod to support by way of example his contention that much learning does not produce understanding. The extant remains of most of these early writers contain equally sharp

³ Cf. Heidel, *Anaximander's Book*, p. 263, n. 62, and Aelian, *V. H.* IV, 17 (quoted by Schuhl, *Essai sur la Formation de la Pensée Grecque*, p. 148, n. 1).

⁴ Frag. 332 (Müller) = 1a (Jacoby [I, p. 7]).

⁵ 22 B 40 (Diehl-Kranz).

censure of the doctrines of their predecessors and of the opinions of the many. Xenophanes, who apparently adopted an extreme position of empirical common sense in opposition to all subtle "scientific theory," scornfully called the wars of the gods with the Titans and the Giants "fictions of the men of old."⁵ Heraclitus, who expressed complete contempt for the multitude which followed false teachers and for the "polymaths" alike because they did not perceive the true "logos," received from Parmenides the supreme indignity of having the terms of his "logos" used to describe the men who wander in utter ignorance, facing both ways and believing that to be and not to be are the same thing and not the same.⁶ All the processes which men believe to be real Parmenides declared to be nothing but words which they had themselves established;⁷ and Empedocles, berating men for supposing that anything could come to be or be destroyed, adapted to his own use the charge of Parmenides that these supposed processes are mere misnomers.⁸

Such censure is not balanced by acknowledgment of any debt to earlier thinkers, even the obvious one of stimulation. This might be an incidental result of the ravages of time which have left us so little of what the pre-Socratics wrote, but the tone of what has been preserved to us makes any such generous explanation at least improbable. Heraclitus boasted that he had "made research into himself," that is to say that he had learned from no one else but had found the truth by introspection.⁹ This way he must have considered to be open to anyone who has the will

⁵ Frag. 1 (I, p. 128, 2 [Diels-Kranz]).

⁶ Frag. 6 (I, p. 233, 4-9 [Diels-Kranz]).

⁷ Frag. 8, 38-41 (I, p. 238, 7-10 [Diels-Kranz]).

⁸ Frag. 11 (I, p. 313, 18-20 [Diels-Kranz]) and Frag. 8 (I, p. 312, 7-10 [Diels-Kranz]).

⁹ Frag. 101 (I, p. 173, 11 [Diels-Kranz]) and A 1, § 5 (I, p. 140, 23-24 [Diels-Kranz]).

to take it, for he asserted that intelligent thought is common to all;¹⁰ and, though he upbraided humanity for taking poets and the mob to be its instructors,¹¹ he ascribed the diversity and falsity of men's opinions to the fact that they turn away from the common "logos" each to illusory thoughts of his own,¹² as men in sleep turn each to a private world away from the single cosmos that they share while waking.¹³ Empedocles explained the multitude of erroneous doctrines as the result of "partial views" of the truth: each individual, having seen but a small part of the whole, is convinced that what he has chanced upon in his little life is everything;¹⁴ and this explanation he applied¹⁵ specifically to the "common sense" statement of Xenophanes¹⁶ that the earth extends downwards to infinity.

These accounts have more affinity with theories of knowledge, however, than they have with any theory of the interrelation or development of thoughts, opinions, or doctrines. The germ of such a theory might more plausibly be recognized in a fragment of the unphilosophical Xenophanes,¹⁷ which says that the gods did not reveal all things to mortals from the beginning but men by seeking discover in time what is better. This is an early, perhaps the earliest expression of the theory of intellectual and cultural progress which later became a common-place of Greek

¹⁰ Frag. 113 (I, 176, 4 [Diels-Kranz]).

¹¹ Frag. 104 (I, p. 174, 3-6 [Diels-Kranz]) and Frag. 57 (I, p. 163, 7-9 [Diels-Kranz]).

¹² Frag. 2 (I, p. 151, 1-4 [Diels-Kranz]).

¹³ Frag. 89 (I, p. 171, 3-5 [Diels-Kranz]); cf. Frag. 72 (I, p. 167, 9-11) which suggests that Heraclitus intended the proportion: the unintelligent awake are like men asleep, i.e., the intelligent: the unintelligent awake = the unintelligent awake: men asleep.

¹⁴ Frag. 2 (I, p. 309, 2-6 [Diels-Kranz]).

¹⁵ Frag. 39 (I, p. 329, 5-7 [Diels-Kranz]).

¹⁶ Frag. 28 (I, p. 135, 16-17 [Diels-Kranz]).

¹⁷ Frag. 18 (I, p. 133, 13-14 [Diels-Kranz]).

thought;¹⁸ and positivistic interpreters, combining this fragment with one which they took to express a doctrine of scepticism,¹⁹ have ascribed to Xenophanes the adumbration of their own notions of the nature of scientific progress. It is tempting to assume that the fragment which I have cited involves the notion that each discovery or invention is in some way determined by those which preceded it; but there is no indication that Xenophanes was aware of this implication, and, even if he was, it is a long step from such a notion to the doctrine that there is any similar causal connection among men's thoughts and opinions. Xenophanes seems rather to have thought that in the sphere of the invisible and intangible there is an objective truth which different men may approximate in different degrees but can never and with certainty grasp as it is, since each infects it with his own fancy.²⁰ He had observed that different peoples ascribed different appearances to the gods and moreover that each created the gods in its own image, the Ethiopians making them black and snubnosed, the Thracians blue-eyed and red-haired; and he indicated the universality of this tendency by saying that the brute beasts, if they could draw or mould figures, would each give the gods shapes like their own. From this he concluded that the ascription of any human shape, characteristic, or activity to divinity is a subjective error of men, though he did not on the same grounds reject the notion of divinity itself. On the contrary, he asserted the unity of divinity, the nature of which he

¹⁸ Cf. for example Isocrates, *Paneg.* § 32; Chaeremon, frag. 21 (Nauck², p. 788); Moschion, frag. 6 (Nauck², pp. 813 f.) which is particularly interesting because in lines 20-21 the three explanations of progress in time are mentioned: 1) the concern of Prometheus (i. e. gift of a higher power), 2) necessity, 3) nature as a result of long habit; Lucretius, V, 783 ff., especially 1105 ff.

¹⁹ Frag. 34 (I, p. 137, 2-5 [Diels-Kranz]); cf. Shorey, *Class. Phil.*, VI (1911), pp. 88 ff. on Gomperz's interpretation.

²⁰ Frag. 34 (I, p. 137, 2-5 [Diels-Kranz]); cf. Wilamowitz, *Hermes*, LXI (1926), p. 280, and the article of Fränkel there referred to.

ascertained through a primitive kind of negative theology by stripping away all the diverse human opinions concerning it.²¹ There is no evidence to show whether or not he thought of generalizing this method of using diverse opinions to cancel one another and taking the residuum as the nearest possible approximation to truth; but in any case he did not attempt to explain the subjectivity even of theological belief further than by citing the transference to the gods of the forms, habits, and functions of their votaries, and he treated all the various opinions as being on the same level without attempting to establish any causal connection among them.

The diversity or diffusion of religious beliefs, of customs, and of what may be called the instruments or manifestations of culture did, however, widely engage the attention of early Greek investigators, who in their speculations treated the phenomena chiefly from the point of view of origins. An example is the case of the alphabet, which according to Greek tradition was the invention of Palamedes. Hecataeus²² "corrected" this tradition by saying that Danaus had brought the alphabet to Greece, which is to say that the Greek alphabet came from Egypt. Herodotus²³ later argued that it was brought into Greece by the Phoenicians and borrowed first by Ionians who made some changes in it. Thereafter almost everyone had his own special thesis to defend in regard to this problem.

What concerns our present interest is, however, the assump-

²¹ Frags. 11-16 (I, pp. 132-33 [Diels-Kranz]) and Frags. 23-26 (I, p. 135 [Diels-Kranz]).

²² Cf. *Scholia in Dionysii Thracis Artem Grammaticam*, p. 183, 5-9 (Hilgard). The Anaximander mentioned along with Hecataeus is probably the younger man of this name (cf. Jacoby, *Fr. Gr. Hist.* 9 F 3, I, p. 160), although Kleingünther (ΠΡΩΤΟΖ ΕΤΡΕΤΗΣ, pp. 40, 45, 64) assumes that he is the Milesian philosopher.

²³ Herodotus, V, 57-59; cf. Kleingünther, *op. cit.*, pp. 60-64.

tion common to all of them that the existence of writing in different languages in different countries must be explained by the direct transfer of writing from one to another, the consequent assumption of a single original writing, and the tendency to identify by personal names the agents of the invention and of the transfers. It sounds late and strange when one hears the scholiast on Dionysius Thrax²⁴ say that the probability is that there were inventors of alphabets in every land and that this explains why the characters used by different peoples are different. Such a notion of independent discoveries or inventions of similar instruments or customs seems never to have occurred to earlier writers such as Hecataeus;²⁵ and certainly the possibility is never suggested in the many passages of Herodotus which deal with these matters. In them a unique origin is always assumed even in the unusual case in which Herodotus cannot make up his mind what the origin of a widespread custom is,²⁶ and in this case as always it is assumed that the Greeks, if they share the custom or use the instrument, are the borrowers, not the originators of it. So, to mention but a few examples and those which concern intellectual history, it was from Egypt that the Greeks got geometry,²⁷ the belief in metempsychosis,²⁸ and the names of most of the gods, these last having come by way of the Pelasgians who devised the few that did not come originally from Egypt.²⁹

This search for origins, which in the extant literature we can first observe being pursued over a wide field in the history of Herodotus, though there are indications of its practice at a

²⁴ *Scholia in Dionysii Thracis Artem Grammaticam*, p. 183, 16-17 (Hilgard).

²⁵ Cf. Kleingünther, *op. cit.*, p. 46.

²⁶ II, 167; cf. Kleingünther, *op. cit.*, p. 53 and pp. 57 ff.

²⁷ II, 109, 3.

²⁸ II, 123.

²⁹ II, 4, 2; 50; 52-53.

much earlier date, was systematized in the form of catalogues of "Heuremata" which appeared first under Sophistic influence at the end of the fifth century and issued finally in the Peripatetic collection entitled "Peplos."²⁰

The observation of diverse human customs and beliefs impelled Greek thought at the same time in another direction, a direction clearly indicated by the implications which Xenophanes had seen in the diverse forms of the various national gods. Herodotus, who so assiduously and confidently sought the unique origin of similar customs, gave remarkable expression to this other tendency also. Cambyses, he wrote,²¹ in scoffing at the religious customs of the Egyptians, showed plainly that he was violently mad, for, if one should propose to all men that they choose the fairest customs of all, each group after examining all would choose its own; and in support of this statement he tells the story of the Greeks and Indians who were outraged by the impious suggestion that either group should dispose of its dead in the way that the other considered pious. Before Herodotus, Pindar had put the point succinctly: "Different customs are current with different people, and each one lauds his own justice."²² What implication Pindar saw in this is not known, since the fragment is preserved in isolation; the moral that Herodotus drew was tolerance of differences of belief, but the seed of this tolerance could as easily flower in complete cynicism. If the diversity of opinions about the form of the gods had not brought Xenophanes to atheism, it had seemed to him to prove that *all* the various opinions on the subject were erroneous. Heraclitus may have thought that he had discovered a sanction for the diverse customs of different men when he made the

²⁰ Cf. Kleingünther, *op. cit.*, pp. 146-51.

²¹ III, 38.

²² Frag. 203 (Bowra) = 215 (Schroeder).

pronouncement that all human laws are nourished by the one divine law;²² but he had at the same time emphasized the distinction which was to lead to the conviction that the very diversity of human laws and customs proved them all to be equally arbitrary, artificial, and invalid, all opposed to true or natural morality rather than different manifestations or aspects of it. So it came that Sophocles could make Antigone in the height of moral fervor appeal against the statutes of the state to "the unwritten statutes which live not for today or yesterday but forever and no-one knows their beginning."²⁴

To the men of the "sophistic enlightenment," the diversity of human customs implied no such higher "unwritten statute" which all men are bound in conscience to obey but the relativity and artificiality of all law and custom and an incompatibility between these conventions and nature. "Matters of law or custom," said Antiphon,²⁵ "are adventitious, but the rules of nature are necessary; the former are the results of convention and do not arise of themselves, whereas the latter grow of themselves and are not conventional. . . . Most of what is just according to law is inimical to nature." Since customs came to be regarded as human contrivances, it was assumed that they had been contrived by particular human beings, even though these individuals could no longer be identified by name, as Critias²⁶ assumed that there had been some single individual who had contrived the notion of religion and had persuaded men to adopt it. This tendency and, what is more important, the kind of ethical arguments in support of which it was used, appear in parody at the

²² Frag. 114 (I, p. 176, 5-9 [Diels-Kranz]).

²⁴ *Antigone* 456-57.

²⁵ *Oxyrh. Pap.* XI, no. 1364 ed. Hunt, Frag. A, cols. 1-2 (II, pp. 346-48 [Diels-Kranz]).

²⁶ Frag. 25 (II, pp. 386-89 [Diels-Kranz]), lines 12 and 41-42.

end of Aristophanes' *Clouds*,²⁷ where when the father, objecting to being beaten by his son, argues:

On beating fathers custom everywhere has placed its ban,
the son replies:

Was not the one who first devised this custom then a man
Like you and me, and did he not by speech persuade the
crowd

In olden times; and am I any less to be allowed
To set up a new custom for the future age to learn
That sires who once their children whipped be flogged by
them in turn?

And for good measure he adds an argument which parodies the opposition of nature to convention and the theory, adopted by Democritus,²⁸ that men learned the arts and crafts by imitating the lower animals:

Look to the cocks and all the other beasts that you can
name.

They knock their fathers all about; and yet they're just the
same

As we are, save that they don't play the legislative game.²⁹

Reflection upon the diversity of scientific or philosophical theory and opinion led to a conclusion similar to that which was reached by such reflection in the sphere of law and custom and culminated in the intellectual nihilism of Gorgias and the intellectual relativism of Protagoras. One might have expected the Sophists to exploit not merely the diversity of scientific opinions but the possibility of an aetiology and history of such opinions in order to support their scepticism in this field in the way that they sought to establish it in the ethical and social

²⁷ 1420-24.

²⁸ Frag. 154 (II, p. 173, 11-15 [Diels-Kranz]).

²⁹ *Clouds*, 1427-29.

spheres; but no indication exists that they saw this opportunity or in any way tried to construct a causal relation among the opinions and theories which they played off against one another for the purpose of discrediting all.

Besides the attempts to identify origins and originators there is in the extant pre-Platonic literature evidence for only one other kind of historical treatment of philosophical or scientific opinions. Democritus⁴⁰ in his "Little Diacosmos" said that the theories concerning the sun and moon which Anaxagoras had put forward were not his own but had been stolen by him from earlier thinkers. A fragment of Heraclitus,⁴¹ the authenticity of which is doubtful, charges Pythagoras in similar fashion with having excerpted the writings of others and having claimed the resulting wisdom as his own. The charge of plagiarism may at first sight appear to have little to do with the history of ideas; but like the catalogues of "Heuremata" it became one of the accepted formulae used by post-Aristotelian historians of philosophy and, like other formulae in the history of human thought, was ultimately taken so seriously that it became a motive for altering the evidence to account for which it was originally set up. The ironical historian may be amused to observe that Democritus was himself charged by an Epicurean writer with having plagiarized the "Great Diacosmos" of Leucippus,⁴² whose very existence Epicurus himself denied.⁴³ To cite only one other example, Plato was accused of having plagiarized the writings of Protagoras⁴⁴ and of Philolaus;⁴⁵ and on the strength of another version of this hypothesis the "original"

⁴⁰ Frag. 5 (II, p. 134, 7-10 [Diels-Kranz]).

⁴¹ Frag. 129 (I, p. 180, 13 ff. [Diels-Kranz]).

⁴² 67 B 1 a (II, p. 80, 7 ff. [Diels-Kranz]).

⁴³ Cf. Bailey, *The Greek Atomists and Epicurus*, p. 66.

⁴⁴ 80 B 2 and 5 (II, p. 264, 12-19, and p. 265, 13 ff. [Diels-Kranz]).

⁴⁵ 44 A 1 (I, p. 398, 13-18 [Diels-Kranz]).

from which he was supposed to have copied the *Timaeus* was later forged and is still extant.⁴⁶ The motives for these later charges of plagiarism were, of course, various and complicated, and among them were often malice and the professional zeal of rival schools; but it is important to understand that the formula sometimes covered what we should now call the *influence* of one writer upon another and that in such cases it is only one example of the crude externalization of the history of ideas, of which the formula of "Heuremata" is another.

What Plato did with this formula of "Heuremata" is an instructive introduction to his attitude towards the history of thought in general. In the *Phaedrus* ⁴⁷ Socrates gives an account of the invention of writing, ascribing it to Theuth, one of the gods who inhabited Egypt in ancient times, and telling how Thamous, the king, explained to the inventor that his invention would have effects the contrary of what he expected. It is for the sake of Thamous's criticism, of course, that Socrates tells this story of the invention which he introduces as an Egyptian tradition; but to make this perfectly clear Plato has at the end given Phaedrus and Socrates a brief interchange of remarks which defines his own conception of the limits and uses of such historical categories. The sophisticated, young Phaedrus knows that the story is not "historically true"; and his immediate comment at its conclusion is: "Socrates, you lightly invent tales of Egyptians and men of whatsoever land you like." Socrates replies that the generation of Phaedrus is wiser than the men of old who in their simplicity were satisfied with the truth even if it came from stocks and stones, whereas to Phaedrus it matters *who* has said a thing since his concern is not solely whether

⁴⁶ *Timaeus* Locrus, *περί ψυχῆς κόσμου καὶ φύσιος*. (cf. Harder, *R.E.*, Zweite Reihe, VI, 1, 1225).

⁴⁷ 274C-275C.

what is said is true. This obviously is not merely what the commentators say, a warning to readers not to take Socrates' history as literally true; it is also Plato's confession that to him the importance of a theory or judgment lies in its meaning and validity and not in its author or origin; but it is besides Plato's apology for his own technique of presenting in the form of temporal history matters which he believes in truth transcend temporality. Here is, instead of the unconscious and naïve externalization of the history of thought, the conscious avowal of externalization as a technique of analysis and representation with the concomitant warning that the representation is not the truth but only a symbol of it.

The warning is repeated more explicitly in the *Timaeus*,⁴⁸ where Plato apologizes for describing in temporal sequence the creation of the material and spiritual factors of the universe and says that this manner of speaking is a consequence of the contingent or haphazard which is a large element in the constitution of man. The very form of expression which Plato chose to use, the dialogue, is an application of this technique of externalization, the externalization of thought which is the dialogue of the soul with itself, the different moments represented by different characters whose names are historical names and whose masks and tones are so realistically portrayed that great scholars have insisted that this must all be history—not a fiction of Plato's but the veritable words of Socrates and his companions and opponents faithfully recorded. All the more difficult has it been for readers to understand in what sense those passages of the dialogues are historical which profess to deal with the interrelation of the doctrines of earlier philosophers.

There is a famous passage in the *Phaedo* ⁴⁹ in which Socrates

⁴⁸ 34C.

⁴⁹ 96 A ff.

tells how in his youth he zealously engaged in the investigation of nature, hoping to learn the causes of things, how the various doctrines of earlier philosophers, unnamed but identifiable, left him more bewildered than ever, how his hopes were raised when he heard of Anaxagoras' doctrine of *Noûs* and were dashed again when he read the book of Anaxagoras, and how finally in desperation he took refuge in his own method of dialectic and in the theory of ideas. This passage has been taken by some scholars quite literally as an historical account of Socrates' development, and in the references to the various doctrines mentioned they have tried to identify the historical influences upon Socrates' thought; but then one must also take the culminating theory of ideas as the doctrine of Socrates, not of Plato, and all the evidence that we have—and there is much of it—speaks against this.⁶⁰ Did Plato then intend this to be his own intellectual autobiography transferred to Socrates? Only in the sense that it is neither the one nor the other exclusively but a generalized "philosopher's progress," and a "philosopher's progress" in which the progressive stages are represented by particular doctrines of earlier philosophy arranged according to a schematic interpretation.

The philosopher symbolized by Socrates begins with a dim perception of that which this progress is to clarify. He seeks the causes of things, *ai airiai* which he specifies at the beginning as "the cause *why*," *διὰ τί*,⁶¹ without yet being aware of the implications of that specification. First he seeks in vain through the different mechanistic theories, which are arranged schematically and not according to their historical chronological

⁶⁰ One of the interesting bits of evidence is *Metaphysics* 987 B 31-33, an obvious reminiscence of *Phaedo* 99 E ff., which shows that Aristotle took the last part of this "biography of Socrates" as a reference to Plato, not to Socrates.

⁶¹ 96 A 8-10.

sequence and among which is included the mechanistic part of Anaxagoras' doctrine,⁹³ the author of which is not named, because his doctrine has been divided in two in order that the nonmechanistic part with which his name is especially connected may be used to represent the second stage. It is only after the philosopher has been disappointed in the promise which that part of Anaxagoras' doctrine, the conception of *Noûs*, seemed to him to make that he understands why the doctrines of the earlier stage only increased his bewilderment, for now because of the suggestion of Anaxagoras which Anaxagoras did not himself understand he can clarify that cause as *διὰ τί* which he was seeking from the beginning and see that it is final causality as distinguished from necessary condition, which, Socrates now says,⁹⁴ most people, like men who fumble for their way in the dark, mistakenly give the name of "cause."

This brief analysis of the passage shows, I think, that, while Plato is here concerned with the interrelation of philosophical theories and employs for the elements of his construction doctrines which were held by historical persons, his purpose is not to give an account of the development of any particular individual or of the whole of preceding philosophy. He has put into the temporal sequence of a narrative what he considered to be the necessary relation of the various possible ways of looking at the problem of causality; and, although the whole "progress" culminates in the theory of ideas, we cannot assume even that it therefore describes, or that Plato meant it to describe, the course by which he arrived at that theory himself.

So Plato intended something other than what we mean by an historical account when in the *Theaetetus*⁹⁵ he wrote that, with the exception of Parmenides, all the wise men in succession

⁹³ 96 C 7-D 3.

⁹⁴ 99 A-B.

⁹⁵ 152 E ff.

from Homer, the father of tragedy, and Epicharmus, the father of comedy, are to be taken as agreeing on the proposition that nothing ever exists but all things are always in process of becoming and gives by name as examples of these wise men Protagoras, Heraclitus, and Empedocles. He did undoubtedly intend most seriously to emphasize that the relativism which in this dialogue he elaborated and in its elaborated form put into the mouth of Protagoras had always been one aspect of Greek thought or perhaps had always been and would always be one aspect of all human thought. To the external form, however, in which he expressed this interpretation he ascribed no validity of its own. That is clear from the fact that he altered this form to suit different contexts, as when in the *Cratylus*⁴⁶ he made Socrates profess to discover the doctrine of Heraclitus in lines of Homer, Hesiod, and Orpheus and even to ascribe it to the hypothetical founders of language but made no mention of Protagoras, Empedocles, or Epicharmus. When one recalls, moreover, the opinion expressed by Socrates in the *Protagoras*⁴⁷ concerning the use and possibility of discovering what the poets really meant, one cannot suppose that Plato would have seriously defended the interpretations by means of which he read into Homer's lines the doctrine of flux or relativity. Whether or not Homer really espoused that doctrine consciously or at all did not concern him; he believed that the attitude towards reality of which that doctrine is a manifestation was as old as thought itself, he wanted a symbol by means of which he could most vividly express that belief, and so he used Homer as such a symbol, nothing more.

It is for the same reason that in the *Sophist*⁴⁸ the Eleatic doctrine of the unity of being is said to have "begun with

⁴⁶ 401 B-402 D.

⁴⁷ 347 C-348 A.

⁴⁸ 242 D-E.

Xenophanes and even earlier." The opposite of the notion that being is many must have been as old as that notion. Not only Empedocles, who was later in time than Parmenides, but Heraclitus, too, who was certainly earlier, is there represented as having sought a compromise between these two extremes; and it may be that it was in order to avoid an obvious anachronism that the name of Parmenides is not mentioned along with that of Xenophanes in this passage. This is not to say that Plato here "rearranged" history; he was not interested in history at all in the sense of the temporal sequence of theories. In his opinion the tendencies towards the many and the one and compromise between them are always present in human thought, and the logical scheme into which he analyses this nontemporal fact misrepresents that fact no more than does the historical externalization of the truth in time—or rather not so much.

This difference between Plato's attitude and ours towards the history of thought is most strikingly exemplified by a later passage in the *Sophist*⁸⁸ in which he describes as a battle of the giants the argument between the materialists and "the friends of the ideas," the former dragging all things down to earth and insisting that only what can be touched and felt has existence, the latter defending themselves from some invisible height and maintaining that intelligible and incorporeal ideas are true existence. "Between them," Plato says, "is joined forever war without limit." Modern scholars almost without exception⁸⁹ have assumed that the two parties here described must have been historical persons, whom they have forthwith attempted not without much controversy to identify. Certain characteristics ascribed to either later in the passage do make it possible to ascertain the particular groups that Plato used as his models for

⁸⁸ 246 A ff.

⁸⁹ There are some exceptions, chief among them Paul Friedländer.

the descriptions; but Plato has said that the struggle continues forever, and so the historical persons whose particular lineaments of argument and designation were borrowed for the description or even perhaps suggested it are not what was significant to him but only served as symbols of two factions which he saw always at strife in human thought.

Such considerations did not occur to Aristotle, who apparently supposed that Plato had intended his schematic analyses for "history." So Plato's use of Homer caused him to consider in all gravity whether the poet had really been a physical philosopher before Thales and had anticipated the latter's doctrine.⁶⁰ Upon this question he pronounced a "*non liquet*"; but Plato's similar use of Xenophanes he not only took in the same literal fashion but accepted in this sense as true, so that in virtue of this misconception Xenophanes became the founder of the Eleatic school and the teacher of Parmenides.⁶¹ Examples like this indicate that Aristotle failed to understand Plato's purposely unhistorical technique; but for all that his own method of treating earlier thought is not without some similarity to Plato's and was not unaffected by it.

Such a statement as this may at first hearing seem to be both paradoxical and heretical. The most learned historian of Greek philosophy has paid homage to the historical research and erudition of Aristotle and has called him the originator of the history of philosophy;⁶² and Aristotle's treatment of his predecessors in his extant works is so extensive and detailed that large parts of his writings do sound like histories of philosophy and, read by themselves, give the impression of having been written with what we should call a purely historical purpose. Almost every phi-

⁶⁰ *Metaphysics* 983 B 27-984 A 2; cf. Ross, *Metaphysics* I, p. 130.

⁶¹ *Metaphysics* 986 B 21 ff.; cf. Ross, *op. cit.*, p. 153.

⁶² Zeller, *Phil. Griech.*, I, 2, p. 1361.

losophical question that he discusses is introduced by an account of the earlier treatments of the question; and these are usually presented not as mere lists of different opinions but as doctrines which in their origins and their peculiar characteristics are somehow related to one another. The explanation, for example, in *Metaphysics A* of the influences which were responsible for Plato's formulation of the theory of ideas⁴³ and in the essay on *Generation and Corruption*⁴⁴ the account of the background and origins of the atomic theory sound as if they might have been written by a modern historian and have in fact been reproduced as satisfactory and accurate accounts by most historians of Greek philosophy.

When it is observed, however, that in different contexts Aristotle gives different accounts of the same doctrine, omitting or emphasizing different parts of it, finding in it different and even incompatible meanings and implications, and explaining its origins and background in quite different ways, and especially when it is further observed that such variations are always relevant to some particular part of his own philosophical doctrine, the establishment of which constitutes the larger context,⁴⁵ it becomes clear that these expositions were written for a purpose that was not merely historical and that the character of each exposition and interpretation was determined by this purpose.

Aristotle was certainly influenced by the literary form in which Plato had written, for he wrote dialogues himself; but, since none of these survives, it cannot be known whether they were more than superficial imitations of the form of Plato's literary expression. It may be the effect of this same influence in a pro-

⁴³ *Metaphysics* 987 A 32-B 10.

⁴⁴ *De Generatione* 324 B 35-325 B 15.

⁴⁵ See Cherniss, *Aristotle's Criticism of Presocratic Philosophy*, *passim*, e. g. pp. 220-21, p. 113, and Chapter VII, e. g. p. 349.

founder sense, however, that so much of the extant technical writing of Aristotle consists of aporetic discussions. Each of these discussions is a kind of dialogue in which the interlocutors are replaced by the expositions of earlier opinions which are played off against one another. Each opinion is meant to contribute to the conclusion of the discussion, which is Aristotle's own doctrine; and this end determines the choice and interpretation of the opinions of his predecessors in each particular context. The purpose of his expositions of earlier thought was, then, dialectical rather than historical; but the justification of this dialectical technique lay in his conception of the history of thought. He believed that the full truth had been discovered and lost many times, that his own system was the completion of one of these cycles of discovery, and that all previous doctrines known to him were vague and confused vestiges of the truth and therefore "stammering" attempts to express his own system. These earlier doctrines were then the material from which by combination and interpretation the shattered pattern of reality could be reintegrated;⁶⁶ conversely, the only rule by which earlier doctrines could be judged, compared, and distinguished must be the extent to which they succeeded in approximating the norm which was Aristotle's system, and he groups and regroups them to emphasize now one phase of this theory and again another. Even the exposition of previous philosophy which constitutes the whole of the first book of the *Metaphysics* is in fact a dialectical argument in support of the Aristotelian doctrine of the four types of causality and was intended as such.

"It is evident," Aristotle says in conclusion of this exposition,⁶⁷ "that all men seem to seek the causes named in the *Physics* and

⁶⁶ Cf. *Aristotle's Criticism of Presocratic Philosophy*, p. 348 and references there.

⁶⁷ *Metaphysics* 993 A 11 ff.

that we cannot name any besides these; but they seek them vaguely; and, though in a sense they have all been described before, in a sense they have not been described at all, for early philosophy is on all subjects like one that lisps, in that it is young and in its beginnings." In final exemplification of this he explains that Empedocles, though he did not clearly state the position for which his doctrine is here employed, would necessarily have agreed with the Aristotelian clarification of it, had this been put before him. Aristotle did not envisage the possibility that the problems with which earlier thinkers were concerned may have been different from his own. He was concerned with their opinions as varying approximations to an expression of the truth which is identical for all; and, if at times his treatment of them has to us more the semblance of history than Plato's has, that is chiefly because this truth, which he conceived as the final cause of all these philosophical opinions, was no longer as for Plato an extratemporal world of ideas but his own philosophical system, the expression of which did follow them in time as the full flowering of what they contained in seed and had manifested only partially and imperfectly.

Yet Aristotle, even if he was not an historian of philosophy, was in a different sense the founder of the history of philosophy. His pupils or associates in the Lyceum were encouraged or perhaps incited by him to undertake historical researches in many fields, among the most famous and influential of which were Aristoxenus' *History of Music*, Eudemus' *History of Mathematics*, and Theophrastus' *History of Natural Philosophy*. Much of this Peripatetic work was purely annalistic or what we should call compilations of the materials for history rather than historical writing. At the same time there was cultivated among the Peripatetics a taste for biography which from the very beginning leaned strongly towards the scandalous. From the work of

Theophrastus descended all the later so-called doxographical writings, summaries more or less elaborate of the opinions of philosophers arranged in encyclopaedic fashion either by subjects or by schools, with later additions by hands only conjecturally identifiable. In them and in the extant fragments of the *History* of Theophrastus from which they are ultimately descended can be discerned a certain influence of Aristotle, for which Aristotle cannot be fairly held responsible. The dialectical configurations and interpretations which he had employed were taken for literal history by Theophrastus even as Aristotle had sometimes taken literally the dialectical schemata of Plato. Moreover, Theophrastus began to use as a regular expedient to explain apparent similarities in the opinions and formulations of different thinkers the assumption of a teacher-pupil relation and the framework of philosophical schools, a construction to which Aristotle had already occasionally had recourse and which later became a highly elaborated device of the historians. It is but one example, though the most obvious and striking one, of the ever increasing externalization of the history of philosophy from this point onwards in ancient times; the extremes to which it was driven may be seen in the first book of Diogenes Laertius⁶⁶ where all philosophers down to Clitomachus, Chrysippus, Theophrastus, and Epicurus—that is, Academic, Stoic, Peripatetic, and Epicurean—are fitted into two schools deriving by direct lines of succession from Thales and Pherecydes.

From the Hellenistic Age onwards, histories of philosophy were written that were divorced from all philosophizing; but in consequence they were nothing more than lists of philosophical opinions or sequences of biographies of philosophers consisting largely of personal anecdotes, and even those opinions and these

⁶⁶ I, 13-15.

biographical details were usually derived not from the original writings of the philosophers concerned or even from serious historical records but by multiple reflection from the dialectical passages of Aristotle, from the fictionalized or scandalous Peripatetic biographies, or from such dialogues and philosophical romances as those of Heraclides Ponticus, Aristoxenus, Clearchus, and Eratosthenes. The sediment of all this writing is preserved for us in the undigested, uncritical, and often self-contradictory collection of Diogenes Laertius entitled *The Lives and Opinions of the Eminent Philosophers*, which, because it is unique, having outlived all its sources, has served as the foundation of all modern histories of Greek philosophy.

The philosophers, when they dealt with earlier thought at all, did so either to repudiate it all in establishment of their own absolute originality, as did Epicurus, or to read into some earlier writer their own doctrines, as the Stoics did with Heraclitus or as Plotinus did with Plato. Dissatisfaction with the multiplicity of philosophical dogmas gave rise to syncretism, which operated by compromising the differences among divergent doctrines, or to scepticism, which mustered all known differences of opinion concerning every possible question in order to prove that no certain knowledge is attainable concerning anything; but neither the syncretists nor the sceptics attempted to explain how such differences of opinion arose or to relate them to one another or to circumstances and conditions which might have determined them. In short, there is not anywhere in Greek philosophy or the Greeks' own history of philosophy anything that corresponds to what we call the history of ideas.

Why Plato and Aristotle were not concerned with the history of thought as mere history I have already indicated. They were concerned with something else, with the nature of objective truth, with the ideas or universals which have no history rather

than with the particular attempts of particular human beings to formulate in thought or speech the nature of this eternal truth. When they sought, each in his own way, to formulate the nature of this truth or to indicate the procedure by which it could be grasped (for Plato's writings at least have rather the latter purpose than the former), they made use of historical names and formulations, to be sure, but they used them as material to be reshaped by their dialectical method with the intention not of accurately retracing the particular course that thought had taken in the past but of eliciting the typical or universal aspects from these imperfect particular manifestations, Plato fashioning an ideal panorama of philosophy, the moments of which must always be present in human thinking as the problem of the one and the many, he says,⁶⁹ is a deathless and ageless affection of human discourse which had no beginning and will never have an end, Aristotle refashioning historical material as tragedy refashions it in order to state not what has happened but what may happen, whereby it is more philosophical than history is.⁷⁰ To Aristotle as well as to Plato the very possibility of what we call a history of ideas would have seemed to be incompatible with philosophy, which to them implied an objective and eternal truth discernible by each individual human mind directly.

Something of this attitude was characteristic of all Greek philosophical thought. The doctrine of the relativity of sensation so widely held by the pre-Socratics was not extended by them to knowledge and the object of knowledge; Heraclitus, Parmenides, and Empedocles all assumed an objective truth, the knowledge of which is possible directly and only directly to each individual, and even the Atomists and Epicureans, whose theory

⁶⁹ *Philebus* 15 D.

⁷⁰ *Poetics* 1451 B 4 ff.

of the origin of the arts in human imitation of the other animals could have been extended into a theory of the growth and development of human thought, made no such extension of it themselves but explained the mental state and knowledge of each individual independently by the varying impact upon each of the atoms which for them constituted the unique objective truth. The case of Protagoras and the later Sceptics is most instructive of all in this connection, for it might have been expected that, when they rejected the possibility of attaining objective truth, they would have explained the various opinions of men in terms of the influence upon men's minds of their linguistic, cultural, and philosophical environments and antecedents. This they did not do; but instead they left each man an autonomous world in himself, generating his own thoughts without relation to those of his predecessors. So pervasive was the notion that the thought of each individual is directed to a universal and objective truth of some kind and determined by it that people like this, who denied the existence or the accessibility of such truth, could not conceive of relating the thoughts of the individual to anything else unless it were to make them merely epiphenomena of sensation. To explain them as passing from mind to mind, growing, developing, changing, and vanishing to reappear later in altered guise or shifted intention would have seemed to them to be more mythological than Protagoras' avowed myth of Zeus's distribution of a sense of justice to men, for it would be to endow with life and individuality of their own what are only functions of individual minds. They did not have the successful hypothesis of biological evolution to make it easy for them to employ the metaphor of the growth, mutation, and development of ideas as such.

As for the biographers and doxographers, the ancient specialists in the history of philosophy, they wrote as recorders of events or

scorekeepers without any critical understanding of the philosophical problems with which the subjects of their histories had wrestled, of the various techniques that had been employed to resolve these problems, or of the different ways in which the solutions had been determined by the status of the problems and the manner of grappling with them. In so far as they tried at all to explain the philosophy, the history of which they were supposedly writing, they did so by means of biographical accidents in the lives of the philosophers or by treating dogmas as counters passed from one column to another and added, subtracted, or exchanged against one another in the account-books of the schools. Of them no history of ideas could be expected, for they did not concern themselves with ideas but at best with an epitome of their expression and with the lives of those who had expressed them. Their work is useful to us only because most of the philosophy of which it pretends to be a history and is not has disappeared; but the limits of its usefulness are painfully strict and very dangerous to overstep, and its later influence even down to the present has been sinister, for the complete externalization of the history of ancient philosophy has been encouraged and maintained to a great extent by its example. There can be no real history of philosophy unless the historian philosophizes, philosophizes within the framework of his subject and at the same time keeps his critical faculty detached and vigilant over the philosophy which he is rethinking. That is why the ancient doxographers were not historians of ideas; it is why so much of the modern history of ancient philosophy is little better than doxography; but conversely, if I may be bold to give one reason for many, it is why the study of the history of ideas has been prosecuted with such sound and signal success by the man to whom we here express our gratitude, Professor Arthur O. Lovejoy.

THE CHARACTERISTICS AND EFFECTS OF PRESOCRATIC PHILOSOPHY *

It is only fair for you to be forewarned that I do not intend to present you with an exhaustive doxography, a list of the opinions and systems of all the important philosophers before Socrates, or to offer you a formula to which the meaning of all Presocratic philosophy can be reduced. My purpose is merely to suggest certain salient characteristics which, I believe, can help one to find one's way through the extant remains of Presocratic philosophy and to appraise at something like their real value the many formulae which have been offered, each as the only effective key to the understanding of those remains, and then to indicate how the Presocratic thinkers affected the character of subsequent philosophy.

This subsequent philosophy has unfortunately limited seriously and to some degree effectively prevented our direct approach to the Presocratics. We possess no single complete work of any of the Presocratic philosophers, and most of the scanty and disconnected fragments that we have are preserved only because they were quoted by post-Socratic philosophers for their own dialectical purposes or quoted by later commentators of those philosophers in illustration of the statements which they had made about the Presocratics. The result is that such direct quotations of the Presocratics as we do possess are almost entirely a selection determined by the interpretations and formulations of Presocratic philosophy by the post-Socratic philosophers for their own philosophical purposes, chiefly by Aristotle and to a lesser extent by Plato, by the Stoics, and by the Sceptics. The ancient accounts of Presocratic philosophy are prejudiced in the same fashion, since most of them depend ultimately upon Theophrastus' *History of Philosophy* and in that work Theophrastus interpreted the Presocratics not merely according to general Peripatetic formulae as might have been expected but usually in close dependence upon the particular formulations of Aristotle. In considering any so-called

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fragment, therefore, it is necessary not to be content to read it in isolation. One must take into consideration the whole context in which it has been preserved (a context which sometimes is as extensive as a whole book of Aristotle's *Metaphysics*), the ultimate source of that context if it can be discovered, and the possible reasons why this particular fragment was quoted or this particular interpretation adopted in this particular place. Such careful investigation, comparison, and reflection are necessary before one can feel even reasonably sure that one is ascribing to a Presocratic philosopher a conception or an attitude that was his own and not some later interpretation or deformation of it.

There is no more significant characteristic of a philosopher's thought than the kind of questions that he asks, the problems which he feels called upon to solve as contrasted with the assumptions that he makes; and it is just in this respect that the character of Presocratic thought is most thoroughly concealed and misrepresented as a result of the channels through which it has been transmitted. The doxographers listed the opinions of all philosophers as if they were all answers to the same questions asked in the same way; and each philosopher interpreted his predecessors, if he considered them at all, as if they had been trying to answer the same questions which he had posed for himself. Book A of Aristotle's *Metaphysics*, for example, which both directly and through Theophrastus had greater influence upon the subsequent ancient histories of philosophy than any other single work, interprets all previous philosophy as a groping for his own doctrine of four-fold causality and is in fact intended to be a dialectical argument in support of that doctrine,¹ which itself implies a question that could not have been formulated before Plato. Aristotle as a philosopher is, of course, entirely justified in inquiring what answer any of the Presocratic systems could give to the problem of causality as he had formulated it; but to suppose that such an inquiry is historical, that is, to suppose that any of these systems was elaborated with a view to that problem as formulated by Aristotle, is likely to lead to misinterpretation of those systems themselves and certainly involves the misrepresentation of the motives and intentions of their authors.

It is in this same book of Aristotle's that Thales appears as the first of the "material monists,"² and this is the ultimate source of the

¹ Cf. *Metaphysics* 983 A 24-B 6 and 993 A 11ff.

² *Metaphysics* 983 B 20-984 A 3.

convention which makes him the first identifiable figure in Greek philosophy. How, when, and from what origins Greek philosophy arose are questions which have excited interest, speculation, and controversy from the time of Aristotle to the present. Greek mythography, the Greek rationalistic spirit, the influence of Babylon or Egypt, the practical interests of the sea-faring and colonizing Milesians, mysticism, and interest in the form of divinity, each of these has been held responsible for the appearance in Ionia in the early sixth century B.C. of that systematic concern with the constitution and meaning of existence which is the essence of Greek philosophy. All of these various explanations, however, are based chiefly upon analogical arguments, the validity of which is highly dubious, and upon late Greek statements, which are themselves rather hypotheses and speculations than historical evidence. The lack of any real evidence for the resolution of this problem is emphasized by the paucity of genuine evidence concerning Thales himself. What Aristotle himself knew about Thales' opinions he says that he knew only by tradition; and this was very little and in its significance not at all clear. Thales declared, they say, that the earth rests upon water. So Aristotle in the *De Caelo*,³ where he discusses the position and stability of the earth; in the passage of the *Metaphysics* to which I have already referred he states that this notion of Thales' followed from his doctrine that all things come to be from water.⁴ This, at any rate, is a doctrine which Thales "is said" to have held,⁵ and on the basis of this Aristotle makes him a "material monist"; but he does not tell us who said so. It might possibly have been Hippo, who held the doctrine himself and who may have sought in this way to lend it authority after the fashion of antiquity. Hippo is mentioned in this same passage,⁶ and Aristotle here suggests as a reason why Thales decided that all things come to be from water an argument which elsewhere he ascribes to Hippo.⁷ What we know of Aristotle's general method of interpreting his predecessors, however, and the specific purpose of his dialectical history in this book arouse the suspicion that Thales was not led from the general doctrine that all things come to be from water to draw the conclusion that the earth rests upon water, but conversely from the tradition which ascribed to Thales the notion that the earth rests upon water Aristotle inferred that he had made water the origin of everything. This suspicion is heightened by the fact that Plato does

³ *De Caelo* 294 A 28-30.

⁴ *Metaphysics* 983 B 21.

⁵ *Metaphysics* 984 A 2-3. ⁶ *Metaphysics* 984 A 3-5. ⁷ *De Anima* 405 B 2-3.

not mention Thales in connection with this doctrine in the passages where, attempting to establish the antiquity of the doctrine of flux, he facetiously ascribes it to Homer, Hesiod, and Orpheus on the strength of lines that make Ocean the origin of the gods.⁸ To Plato Thales was one of the Seven Sages,⁹ a man to whom tradition ascribed ingenious contrivances for the practical arts.¹⁰ To Herodotus he was known for having advised the Ionians to form a confederation, for having foretold a solar eclipse, and (a tradition which Herodotus disbelieved) for having diverted the course of the Halys river which blocked the way of the army of Croesus.¹¹ Several passages of Aristophanes¹² show that the name "Thales" had in the fifth century B.C. come to be used proverbially to indicate skill in such activities as surveying and engineering, a usage which reflects the same tradition as the later ascription to Thales of the introduction of geometry from Egypt¹³ and of a work on navigation.¹⁴ Such traditions, if taken seriously, can be used to support the thesis that Ionian philosophy grew out of an interest in practical techniques; but, on the other hand, those who insist upon finding the origin of that philosophy in mystical or theological motivations can appeal to the traditions according to which Thales first declared souls to be immortal,¹⁵ asserted that all things are full of gods,¹⁶ and ascribed a soul to the magnet because it moves iron.¹⁷ The trouble is that tradition assigned these or similar statements to other philosophers or sages also,¹⁸ that, strictly considered, the last two are not consistent with each other,¹⁹ and that quite contrary interpretations of these statements can be defended with equal force. To say that all things are full of gods, for example, may be to mean that all things are divine in a mystical or religious sense or equally to mean that *nothing* is, in the way that the author of the Hippocratic essay, "On the Sacred Disease," asserts that all diseases are divine and all human, meaning that no disease is sacred in the religious sense at all.²⁰

⁸ *Cratylus* 402 B-C, *Theaetetus* 152 E and 160 D.

⁹ *Protagoras* 343 A.

¹⁰ *Republic* 600 A. ¹¹ *Herodotus*, I, 74, 75, 170. ¹² *Clouds* 180; *Birds* 1009.

¹³ *Frag. der Vorsok.*⁵, I, 76, 10ff. ¹⁴ *Ib.*, I, 80, 3ff. ¹⁵ *Choirilus apud D. L.*, I, 24.

¹⁶ Aristotle, *De Anima* 411 A 7-9.

¹⁷ Aristotle, *De Anima* 405 A 19-21.

¹⁸ Cf., e.g., Aristotle, *De Part. Animal.* 645 A 17-21; Plato, *Laws* 899 B where no author is given.

¹⁹ Cf. Cherniss, *Crit. Pres. Phil.*, p. 296, n. 28.

²⁰ Hippocrates, *Morb. Sacr.* XXI.

The fact is that about Thales' philosophy, if he had one, nothing was certainly known even in antiquity. He had become a kind of "culture-hero" of philosophy; to his name were attached apophthegms and edifying anecdotes to illustrate, sometimes in contradictory fashion, the characteristics of the philosopher; and attempts were made to derive Greek philosophy through him now from foreign and again from indigenous sources by making him a pupil either of the Egyptian priests and the Chaldeans²¹ or of Homer and Hesiod.²² For all purposes of practical consideration Greek philosophy begins with Anaximander, and so it did in ancient times too. That is the kernel of truth in the artificial scheme of successions preserved in the first book of Diogenes Laertius,²³ according to which Ionian philosophy began with Anaximander, and Thales, though he is presumed to have been Anaximander's teacher, is listed not among the philosophers but among the sages.

Anaximander did write a book which was known to Apollodorus of Athens in the second century B.C.; and because of this, although only a few words of that book have been preserved for us, and because Anaximander had made a map which engaged the attention of Eratosthenes, so that his place in the geographical tradition is still discernible, we are not restricted for our knowledge of his work to the doxographical tradition alone. To Aristotle and to Theophrastus, and hence to the doxographies derived from Theophrastus, only those of Anaximander's statements were of interest which dealt with cosmology or natural science and appeared to have ontological or metaphysical implications; but study of the material that does not derive from this tradition has shown that Anaximander was not merely a physiologist in the Aristotelian sense and suggests that the orientation and the interests of the Ionian philosophy of Anaximander's time were far different from what Aristotle would lead one to believe.

Anaximander's purpose²⁴ was to give a description of the inhabited earth, geographical, ethnological, and cultural, and the way in which it had come to be what it was. His book began with a cosmogony and ended with a description of the contemporary world which was in a sense a commentary on the map of the inhabited world that he had

²¹ *Frag. der Vorsok.*⁶, 11 A 11.

²² Probus ad Vergil., p. 21, 14 K (*Dox. Graec.*, p. 91 b); Heraclitus, *Quaest. Homericae*, ch. 22; Theodoretus, *Graec. Aff. Cur.* II, 9 (*Dox. Graec.*, 170). ²³ I, 13.

²⁴ Cf. W. A. Heidel, "Anaximander's Book, The Earliest Known Geographical Treatise," *Proc. Am. Acad. of Arts and Sciences*, vol. 56, no. 7, April, 1921.

charted; it proposed a theory of the origin of the earth and the heavenly bodies and their arrangement, explained the appearance of land-masses on the earth and of geological, geographical, and meteorological phenomena; and proceeded to account for the development of human life upon the land, the distribution of nations, and the origins and dispersion of civilization. The details of his theories aside, the startling and important features of his thought are its universality of scope, its freedom from anthropocentric orientation, and the strictly impersonal causal nexus which is assumed to hold together all objects and events. This is Ionian "historia" in its full sense, the investigation of all existence without specialization or compartmentalization. Anaximander is at once astronomer and geographer, cosmogonist and genealogist, meteorologist, biologist, anthropologist, and historian—not any of them as profoundly as were the specialists to follow him but all of them equally in the service of the complete object of "historia," knowledge of all the world as it is. Moreover, in this world, which is the object of his investigation, man has come to be under the same conditions and limitations as other objects; he is not something apart from the world but is of it and determined by it, not having been always such as he is now but having developed from animals of another kind,²⁵ animate beings themselves having developed from inanimate matter.²⁶ Nor is this world, or cosmos of earth, sun, moon, and stars unique; there is at any moment an unlimited number of such worlds, all of which arise from "the unlimited," which encompasses them all, and into which all of them ultimately pass away to be replaced by others which arise in the same fashion.²⁷ This "unlimited," TO APEIRON, that from which all the worlds and all that is in them are separated out and into which they are again absorbed, is not a single unqualified substance from which entities are developed by qualitative change. The distinction of quality and substrate, the notion of alteration, and the logical conception of identity which makes a paradox of change had not even occurred to Anaximander; they are conceptions which were to come later and gradually, and they have to do with Anaximander's ARCHE or "reservoir" only in the sense that it involves them as problems which are as yet unrecognized. For Anaximander the APEIRON was simply a boundless expanse of infinitely different ingredients so thoroughly mixed together as to be

²⁵ *Frag. der Vorsok.*⁵, 12 A 10 and 30. ²⁶ *Ib.*, 12 A 11 (§ 6) and 30.

²⁷ *Cf. Frag. der Vorsok.*⁵, 12 A 9, 10, 11, 14, 17.

severally indiscernible in the mixture but which when segregated from the mixture are recognizable as all the differences of an articulated world; ²⁸ it is like nothing so much as that "limitless sea of dissimilitude" into which, in the myth of Plato's *Politicus*,²⁹ the cosmos is periodically in danger of sinking. A passage derived from Theophrastus³⁰ proves that Anaximander refrained from specifying further the nature of this reservoir of all existing things; but the designation that he chose for it, the adjective APEIRON substantivized by the definite article, since it has the appearance of an abstraction, made it easy for Theophrastus to follow Aristotle³¹ and, despite his better knowledge, taking TO APEIRON in Aristotle's sense of ARCHE as a "principle" or "element" rather than in Anaximander's of "source" or "reservoir,"³² to interpret it in terms of Aristotelian prime matter as the substrate which is the indeterminate potentiality of all the properties, none of which it has actually.³³ Before Plato, however, both the name and the notion of abstract quality were unknown, and for all Presocratics what we call a quality was a characteristic which could not be considered separately from that of which it was characteristic.³⁴ TO APEIRON is in this respect no different from such a designation as TO THERMON. As the latter does not mean "heat" in Aristotle's sense or ours, an abstract quality which cannot be anything other than itself, but that which is hot or all hot things, which being hot may yet at the same time have many other characteristics, so the former means that which is "unlimited," though besides this significant characteristic it may have other characteristics too. The significance of the fact that Anaximander called his ARCHE simply TO APEIRON without further specification or restriction is not that limitlessness or infinity exhausts its nature but that it is unlimited without restriction, unlimited in every sense of the Greek word, in extent, in multitude, and in kind, in short not that it is *potentially* everything being *actually* nothing but infinity, as the Peripatetic interpretation would have it, but that it is everything *in actuality*. Once this is recognized one finds no trouble but only consistency in the fact that the one Greek sentence of Anaximander's which has been preserved,

²⁸ *Crit. Pres. Phil.*, pp. 375-79.

²⁹ *Politicus* 273 D.

³⁰ *Frag. der Vorsok.*⁵, 12 A 14 (I, p. 85, 5-6).

³¹ Cf., e.g., *Physics* 204 B 22ff. (*Frag. der Vorsok.*⁵ 12 A 16).

³² Cf. Heidel, *Class Phil.* VII (1912), pp. 215-28.

³³ *Frag. der Vorsok.*⁵, 12 A 9 a.

³⁴ Cf. *Crit. Pres. Phil.*, p. 362.

if not in his own words at least in a paraphrase of Theophrastus', refers to the APEIRON or rather to its ingredients in the plural number.³⁶ That is in itself a clear indication not only that the APEIRON is not to be interpreted in the Peripatetic manner but also that the modern fashion of considering it to be a development of Hesiod's CHAOS³⁶ is equally erroneous, for the CHAOS of the *Theogony* is mere yawning emptiness,³⁷ whereas the APEIRON is full and positive and active too, a congeries in continual motion, a motion which the doxographers tend to abstract³⁸ but which Anaximander really took for granted as one of the characteristics of all the ingredients of the APEIRON, as is shown by Theophrastus' criticism that he provided no efficient cause but acted as if matter moves itself.³⁹ There is no description of this movement of the APEIRON, and it may be that Anaximander gave none, though he apparently supposed that, once separated off, the sections of the APEIRON were articulated as worlds in a vortex;⁴⁰ but he did assume that the APEIRON must be in constant motion, that this leads to the separating-off which produces the articulation of worlds, and that consequently, whether directly by its own movement or indirectly through that of the articulated world or both, it also causes the reabsorption of these worlds into itself. This may be what he meant by the statement, if it is really his, that the APEIRON, which he called ageless, deathless, and indestructible, encompasses and guides all things.⁴¹ Ageless, deathless, and indestructible are traditional Greek epithets of the gods. Because Anaximander applied them to his APEIRON, which guides all things, and Aristotle concluded that this is what is considered to be divine,⁴² it has recently been contended⁴³ that there is a deep religious significance in Anaxi-

³⁶ *Frag. der Vorsok.*⁵, 12 B 1 in its context, 12 A 9.

³⁶ Cf., e.g., Gigon, *Der Ursprung der Griechischen Philosophie*, pp. 30 and 61.

³⁷ Cf. *Theogony* 700; Jaeger, *Theology of the Early Greek Philosophers*, p. 13.

³⁸ Cf. *Frag. der Vorsok.*⁵, 12 A 9 (I, p. 83, 12), 12 A 11 (I, p. 84, 5-6), 12 A 17 (I, p. 86, 20-25), and the extreme case 12 A 12.

³⁹ *Frag. der Vorsok.*⁵, 12 A 14 (I, p. 85, 6-8).

⁴⁰ Cf. Burnet, *E. G. P.*², pp. 61-62 on Heidel, *Class Phil.* I (1906), p. 281.

⁴¹ *Frag. der Vorsok.*⁵, 12 A 15 (I, p. 85, 17-21): ἀθάνατον καὶ ἀνώλεθρον alone certainly belong to Anaximander as does ἀγήρω in 12 A 11 (I, p. 84, 2).

⁴² *Frag. der Vorsok.*⁵, 12 A 15 (I, p. 85, 19-20) = *Physics* 203 B 13: the εἶναι of τοῦτ' εἶναι τὸ θεῖον depends upon δοκεῖ above and so need not be a quotation at all but an inference of Aristotle's supported by the specific quotation of the epithets which follows.

⁴³ Jaeger, *Theology of the Early Greek Philosophers*, pp. 31-37.

mander's conception, that he thought that he had found a proof of the existence of Divinity, the general concept of which he first expressed, and that his system is in fact a theology, theogony, and theodicy in one. This is a conclusion which is at the very least unwarranted, even if Anaximander did say that what is divine is his APEIRON, which is far from assured by the evidence, and call the articulated worlds "gods," as the doxography reports.⁴⁴ The latter source in the same context ascribes to Thales the statement that god is the mind which fashioned all things from water,⁴⁵ a manifest fiction which casts suspicion upon the report concerning Anaximander's worlds. Among the sayings ascribed to Thales⁴⁶ is one that defines the divine as that which has neither beginning nor end. Such sayings are "floating maxims" ascribed now to one sage and now to another; but they are undoubtedly old, and Aristotle probably had in mind nothing more than this traditional saying when he remarked that the unlimited is what is considered divine. In any case, Anaximander's APEIRON is in no way conscious or personal and, if it guides all things, it does so in no voluntary sense. The worlds which are segregated from it are reabsorbed by it "as needs must be," and Anaximander envisaged this repeated process as a settling and resettling of accounts among the ingredients of the APEIRON which by being reabsorbed into the common mixture make amends and requital to one another for injustice done "in the fixed order of time."⁴⁷ This is according to him the law of all nature, "law" literally in the sense of a dicastic process which continually redresses the balance among the constituents of existence, the APEIRON being the common fund in which all accounts are equalized. If this is to be considered in relation to theology, it must be admitted to be a complete rejection of all that was traditional in Greek religion. It is the denial that natural order can be suspended by any supernatural being or force, the denial in fact that any supernatural being can exist, and the assertion that, if the divine means anything at all, it can mean only the system of nature ordered according to infrangible law.

This conception of nature as an all-inclusive system ordered by immanent law was Anaximander's most important legacy to subsequent thought. The universal sweep of Anaximander's genius had drawn a cosmological picture, the general outlines and major motifs

⁴⁴ *Frag. der Vorsok.*⁵, 12 A 17 (Aëtius, I, 7, 12; Cicero, *De Natura Deorum* I, 10, 25). ⁴⁵ Cicero, *loc. cit.*; Aëtius, I, 7, 11. ⁴⁶ *Frag. der Vorsok.*⁵, I, p. 71, 20.

⁴⁷ *Frag. der Vorsok.*⁵, 12 B 1.

of which determined the limits and the direction of all subsequent Presocratic speculation in this field; but the picture that he had drawn, if judged seriously by his own guiding principle, would obviously require greater elaboration and precision and rectification in detail and was most influential and most fruitful through the implicit problems to which it unwittingly called the attention of all who looked upon it with understanding. It is in this light that the achievement of Anaximander's younger townsman, Anaximenes, must be appreciated. Anaximenes apparently lacked the encyclopaedic interest which characterized Anaximander. At any rate, so far as is known, he confined his attention to cosmology and natural science—or better, natural history—; but within this special field, applying with extreme rigor and consistency Anaximander's conception of nature, he devised a simple, elegant, and universal theory to account for those very aspects of the physical processes concerning which Anaximander's account was vague and unsatisfactory.

The numberless differences in the articulate world had not really been explained by Anaximander at all; he had simply supposed that they are all present in the reservoir of the *APÉIRON* from which they are separated out and into which they are again absorbed. He had not even considered what this process logically involves: the question of the existence of minute homogeneous particles, the determination of the specific character and form of such particles, the relation of the processes of segregation, aggregation, and dispersion; or the sufficient reason *why* any one of these processes should occur when and where it does "in the fixed order of time." To this last question Anaximenes offered no answer either; but he did attempt really to explain the existence of differences and to derive them from a single source by a single natural mechanism, for the operation of which he found evidence in the physical world about him. This was the mechanism of condensation-rarefaction. All change of every kind he regarded as the result of this one mechanism, in modern terms as a function of the variation of density. The air we exhale is a cold thing, if we compress it with our lips; if we relax our lips in exhalation, it is rarefied and becomes something hot.⁴⁸ If then it is compressed further, it should become water and finally earth and stones; but, if further rarefied, it should become fire.⁴⁹ These are definitely changes of one thing into another, not alterations of quality in a single substrate which

⁴⁸ *Frag. der Vorsok.*⁵, 13 B 2.

⁴⁹ *Frag. der Vorsok.*⁵, 13 A 7.

remains identical;⁵⁰ but, since the most evenly distributed body and the most extensive is air and also because air as "breath" is identified with the soul that "holds living bodies together," Anaximenes made air, as it were, the manifestation of normal density and substituted it for the APEIRON of Anaximander. That the theory was evolved within the frame of Anaximander's cosmology is clear from the fact that Anaximenes made this extra-cosmic air unlimited in extent, that the world is produced from it and reabsorbed into it, though by the new process of condensation and rarefaction, and that within the boundless air innumerable worlds are supposed to exist simultaneously and to pass away to be replaced by others.⁵¹ The correction of Anaximander's system was far from being a mere detail, however; Anaximenes was obviously aware of its importance, for he applied his general theory of rarefaction and condensation with impressive consistency to all the details of his cosmogony, astronomy, geology, and meteorology. His analysis of all objects and events in the physical world as aspects and functions of a single quantitative process is the ultimate achievement that characterizes the orientation of Milesian philosophy.

It emphasizes at the same time the limitations of that philosophy, limitations which were to become important and stimulating problems for subsequent thinkers. Not even Anaximenes thought to give any sufficient reason for the universal process which he had derived, either in general or in its particular manifestations. The bodies which change into one another, including the boundless air, were assumed to be in constant motion. The doxographical report that he supported this with the reasoning that they would not change if they were not in motion⁵² is probably a Peripatetic reconstruction; that motion is the natural state of all body seems to have been an unconscious assumption of his as well as of Anaximander's. At any rate, he did not bother to establish any reason for motion or any causal relation of motion to the stages of the natural processes which he elaborated. Moreover, the logical difficulties involved in Anaximander's ingredients of the APEIRON are present in another form in the theory of Anaximenes, for the designation "air" did not imply for him an identity which includes homogeneity, since the other characteristics of air, as of all bodies, depend upon the mechanical distribu-

⁵⁰ Cf. *Crit. Pres. Phil.*, pp. 379-80.

⁵¹ Cf. Aëtius, II, 1, 3 (*Dox. Graeci*, p. 327) and Burnet, *E. G. P.*³, p. 78.

⁵² *Frag. der Vorsok.*⁵, 13 A 7, § 2.

tion of its parts and such a notion involves the logical difficulty of identifying the "parts";⁵³ but Anaximenes was no more aware of this problem, upon which the Eleatic criticism first focused attention, than Anaximander had been before him. What was more obvious if not more important, the Milesians had succeeded in naturalizing man in the cosmos but had done it so thoroughly as to reduce him to a physical object on the same level as all other physical objects; and these physical objects Anaximenes had in fact, though unwittingly, dissolved. His notion that all things change according to a quantitative mechanism leads directly to the conclusion of physical relativism, for, if water is air that has been "rearranged" by compression, air is also water that has been "rearranged" by rarefaction, nothing is anything but a different degree of everything else, and only the process itself remains fixed.

This conclusion was drawn with radical thoroughness by Heraclitus. In the case of Heraclitus all the difficulties involved in the interpretation of the Presocratics are magnified and are moreover further complicated by special factors. Whereas the Milesians had written in sober prose continuous treatises in which they attempted to give a systematic account of their subject, the book of Heraclitus, though written in prose, consisted of a series of apophthegms unconnected by any obviously logical transitions and expressed in an elaborate oracular style. Heraclitus apparently intended thereby to follow the example of the god whose oracle in Delphi, he said,⁵⁴ neither states anything nor conceals it but gives a sign. Such writing is difficult to interpret objectively but easy to quote for one's own purpose, particularly if one selects phrases that sound significant and quotes them without their context. Heraclitus was widely quoted in this fashion in antiquity; and a substantial number of these quotations is extant, in many cases different pieces of a single apophthegm quoted by different authors for different purposes and with different interpretations. Aristotle, fitting Heraclitus into his general scheme of Ionian philosophy, made of him a material monist who derived all the world from a single element but for this element chose fire instead of Thales' water, Anaximander's infinity, and Anaximenes' air. Nothing of this could have been guessed from the remarks of Plato to whom Heraclitus stood for the constant flux of all things and the everlasting accord of the discordant. The Stoics read into his book all their own

⁵³ Cf. *Crit. Pres. Phil.*, p. 380.

⁵⁴ *Frag. der Vorsok.*⁵, 22 B 93.

doctrine including the endlessly recurring cycle of the articulation of the world from seminal fire and its destruction in conflagration; and the Christian writers turned him into a prophet of their own Last Judgment and the punishment by Hell-Fire. Still by weighing all these conflicting interpretations against one another and carefully comparing the many fragments of the apophthegms that are preserved it is possible to discern the intention and the main characteristics of Heraclitus' thought.

He believed⁵⁶ that he had discovered a truth which none of the teachers of men nor any of the mass of men had yet recognized although it manifests itself to everyone at every turn. Over and over again the extant fragments state the thesis that everything is itself and its opposite, all things are both one and many, because all things are in constant flux, a flux, however, that is not disorder but a harmony which, though hidden, far surpasses any sensible harmony. It is to signify this that he calls the world an everlasting fire "kindling according to measure and according to measure being extinguished." Fire for him was neither a mere symbol of the universal process nor a substrate persisting as identical throughout its qualitative alterations. He speaks of it both as a token for exchange like gold in trade and as involved in change itself; and it was the easier for him in this case to identify the sign and the thing signified, since fire does appear to be the one existing phenomenon that is nothing but change. Even so the Buddhists used it, for whom there is no Being but only constantly shifting events in Becoming which is itself merely flux, flux of nothing.

Anaximenes had discovered that all the diverse entities in the world could be reduced to varying degrees of a single process, but he still retained the matter which changes and even clung to one phase of it as normal and so somehow more "natural" than the others. Heraclitus simply followed his discovery to its logical conclusion, for it too implied that everything was one and many, one thing now and many things before or hereafter. It is then the process alone which really exists, and all the distinctions made by men are but fleeting phases of the process. If everything were smoke and all the other senses declared the single identity of all, the nose would still deny it and smell out differences; as it is, the senses assert that the world is a multitude of differences, whereas it is really one, the process that is fire.

⁵⁶ Cf. *Crit. Pres. Phil.*, pp. 380-82.

Heracitus is not to be understood, however, as simply continuing and extending Milesian philosophy. Even in developing the logical implications of Anaximenes' theory he radically altered its orientation; and despite any Milesian influence that can be discerned in the details of his pronouncements, the characteristics of his thought were entirely different from those of the Milesians and something entirely new. The difficulties that the doxographers found in extracting from his book a systematic natural history like that of the Milesians and the inconsistency of the accounts that they did produce are evidence that he had not intended to give what they insisted upon finding in his writings. We can still judge for ourselves the fashion in which his sporadic references to natural phenomena were used to construct for him a scientific doctrine. The doxographers state that he believed the apparent size of the sun to be its real size;⁵⁶ but fortunately the statement from which they elicited this notion of a reactionary astronomy is still preserved. Heracitus had said: the sun you can cover with one human foot; but the boundaries of the soul you could not discover, though you trod every path, so profound is its measure.⁵⁷ This obviously was not meant to be astronomy at all; it has to do with the soul, not the sun, and goes to support the view of the ancient commentator Diodotus that the subject of Heracitus' book was not natural science and that the references to natural phenomena in it had been introduced only by way of illustration.⁵⁸ Heracitus was, in fact, not interested in "historia" as such. He was willing to concede that one should investigate many things;⁵⁹ but he was scornful of erudition on the ground that it does not teach intelligence,⁶⁰ and with his usual picturesqueness of expression he first stated the limitations of the instruments of "historia": the senses are bad witnesses to them whose souls cannot understand their reports.⁶¹ It is not natural phenomena but the *meaning* of them that one must comprehend if one is to achieve wisdom; wisdom not information or learning is the goal of man, and Heracitus condemned all those whose accounts he had ever heard because none of them had understood that wisdom is apart from everything else.⁶² Yet the way of this comprehension is open to all men; he had achieved it by examining himself,⁶³ and it

⁵⁶ *Frag. der Vorsok.*⁵, 22 A 1, § 7.

⁵⁷ *Frag. der Vorsok.*⁵, 22 B 3 and 45 and Fränkel, *A. J. P.* LIX (1938), p. 327.

⁵⁸ *Frag. der Vorsok.*⁵, 22 A 1, § 15.

⁵⁹ *Frag. der Vorsok.*⁵, 22 B 35.

⁶⁰ *Frag. der Vorsok.*⁵, 22 B 40.

⁶¹ *Frag. der Vorsok.*⁵, 22 B 107.

⁶² *Frag. der Vorsok.*⁵, 22 B 108.

⁶³ *Frag. der Vorsok.*⁵, 22 B 101.

is possible for all men to know themselves and so to think soundly.⁶⁴

The meaning behind phenomena that he had so discovered was not only that the whole world is a process and nothing else, a process that had no beginning and will never have an end,⁶⁵ but that all things are one⁶⁶ because the process has an ineluctable order, the order being a fixed proportion of change. This is the "hidden harmony" that determines the phenomenal world which manifests and signifies it;⁶⁷ it is that which, being "common," binds all the phases of the process together and renders the world intelligible to men if they will only open their eyes to it;⁶⁸ it is the divine law on which all human laws are nourished.⁶⁹ Heraclitus had, of course, no notion of positing a conceptual pattern apart from the world of phenomena; the latter for him *was* the pattern, and the very possibility of distinguishing them was not to be envisaged in the time of the Presocratics; but he for the first time in Western thought declared that reality is not the world that we perceive nor any part of it but a formula that is at once hidden and manifested by this perceptible process.

At least as significant for this first inclination of Greek thought in the direction of idealism is the revolutionary notion that the meaning of the world is to be discovered not by looking outward to phenomena but by probing one's own soul. In this case too Heraclitus did not distinguish two kinds of being. He did not separate the soul from the phenomenal world but thought of it as just another phase of the world process like the phases that are water and earth, in fact as fiery vapor which is a change from moisture and which changes into moisture again.⁷⁰ As fire, then, it is the purest or highest phase of the world-process, though even in this phase distinctions can be made and the soul that is dry is wisest and best.⁷¹ The soul thus being part of the cosmic process and the best or clearest phase of it, it was no more than consistency for Heraclitus to call it also a profound formula or proportion that augments itself;⁷² and one can understand how he may then have arrived at the notion that it should be possible to discover the meaning of the world by examining one's own soul, since it is the clearest phase of the ordered cosmic process. The soul, fire in

⁶⁴ *Frag. der Vorsok.*⁵, 22 B 113 and 116. ⁶⁵ *Ib.*, 22 B 30. ⁶⁶ *Ib.*, 22 B 50.

⁶⁷ *Frag. der Vorsok.*⁵, 22 B 41 and 54; cf. 22 B 123.

⁶⁸ *Frag. der Vorsok.*⁵, 22 B 2; cf. 22 B 17 and 72.

⁶⁹ *Frag. der Vorsok.*⁵, 22 B 114.

⁷⁰ *Frag. der Vorsok.*⁵, 22 B 12 and 36.

⁷¹ *Frag. der Vorsok.*⁵, 22 B 117 and 118; cf. *Crit. Pres. Phil.*, pp. 297-98, notes 29 and 31.

⁷² *Frag. der Vorsok.*⁵, 22 B 115 and 45.

this phase of the cosmic process, is supposed at the same time to be intelligent, of course;⁷³ and that should have raised the problem of the identity of subject and object and the puzzle of self-knowledge, but such questions did not occur to Heraclitus. What is important and new is, first, his assertion that introspection is a way of gaining knowledge about reality and, second, the ethical imperative that rings in all his words. Philosophy is no longer a matter of intellectual curiosity; it is a moral duty. It might seem that man, who is only a fleeting phase in the endless process of the world, need and can do nothing but resign himself to his lot; but Heraclitus insists, however inconsequently, that he can and should maintain his soul in a state of intelligence, understand the true nature of the world, and act in accordance with his knowledge.⁷⁴

It has been suggested that the conception of geometrical proportion, which was so important to Heraclitus and the function of which in the cosmos he tried to indicate by expressing many of his apophthegms in that form, was in origin Pythagorean and was known to Heraclitus from that source.⁷⁵ Pythagoras is one of the persons attacked by name in the extant fragments of Heraclitus,⁷⁶ so that the latter knew or thought that he knew something about him and may very well, despite his antagonism, have adopted some notion of his or of his followers. Pythagoras himself wrote nothing; Plato knew him only as the institutor of a way of life;⁷⁷ and in the works of Aristotle he is scarcely mentioned and his name is never associated with any of the doctrines ascribed to his school.⁷⁸ A passage of Xenophanes⁷⁹ in which the doctrine of metempsychosis is ridiculed was supposed to refer to him, though his name is not mentioned there; and a fragment of Empedocles'⁸⁰ celebrating an unnamed man who remembered ten or twenty of his incarnations was also taken in late antiquity to be a reference to Pythagoras. This theory of metempsychosis, which was to be adopted by Empedocles and later to be given a major rôle in European philosophy and poetry by Plato's integration of it into his philosophy, had been introduced into Greek thought before the time of Heraclitus, as the fragment of Xenophanes shows. If Heraclitus knew it as Pythagorean, it might well have been the source of his

⁷³ *Frag. der Vorsok.*⁵, 22 B 118, cf. 41.

⁷⁴ *Frag. der Vorsok.*⁵, 22 B 2, 43, 44 (cf. 114), 73, 74, 112.

⁷⁵ Cf. Minar, *Class Phil.* XXXIV (1939), pp. 337-40; Fränkel, *A. J. P.* LIX (1938), p. 321.

⁷⁶ *Frag. der Vorsok.*⁵, 22 B 40, 81, and the doubtfully authentic 129.

⁷⁷ *Republic* 600 A. ⁷⁸ Cf. *Crit. Pres. Phil.*, p. 385. ⁷⁹ *Frag. der Vorsok.*⁵, 21 B 7.

⁸⁰ *Frag. der Vorsok.*⁵, 31 B 129.

antagonism, for such a theory asserts the persistence of the individual soul and absolves it from participation in the process of cosmic change.

In one fragment Heraclitus calls Pythagoras "the ancestor of swindlers";⁸¹ in another⁸² he brackets him with Hesiod and with Xenophanes and Hecataeus, condemning them all for lack of intelligence despite their erudition. Hesiod's theogony, his differentiation of all the gods and cosmic powers and his failure to understand that all these are only different phases and aspects of one ordered process without beginning or end, was certainly what aroused the wrath of Heraclitus,⁸³ who was probably incensed against Hecataeus too more by his genealogies and their connections with gods and heroes than by the geographical and historical parts of his work. Xenophanes, a poet and rhapsode, who has become a figure in the history of Greek philosophy by mistake, could have been singled out for censure from among all other poets of his kind for only one reason. His historical poems could not have been unique, his references to natural phenomena were sporadic and made only for the sake of denying both the mythological and the subtly scientific explanations of them, he ridiculed metempsychosis and abominated the mythology of Homer and Hesiod as heartily as Heraclitus did, and like Heraclitus he waged incessant war upon the traditional theology and ritual of Greek polytheism. He maintained that God is one and not anthropomorphic in any sense,⁸⁴ a belief that so far might have made him not uncongenial to Heraclitus; but he also insisted that God never moves or changes,⁸⁵ and such a notion Heraclitus was bound to denounce with the utmost vehemence.

The theology of Xenophanes and the doctrine of metempsychosis arose outside of the main current of Greek philosophy. Both, greeted with scorn at first, were soon to exercise upon it intense though sporadic and tangential influence until finally they merged in the philosophy of Plato. The relations of early Pythagoreanism are even more nebulous, for there were no Pythagorean writings earlier than the time of Socrates and the later ascriptions of theories to the early school and to Pythagoras himself are quite untrustworthy. Unlike all other Presocratic thinkers the Pythagoreans formed communities whose ultimate purpose was moral self-improvement, and so a good deal of their concern was with the practice of a sort of mental and physical hygiene in which the discipline of silence and self-examina-

⁸¹ *Frag. der Vorsok.*⁵, 22 B 81.

⁸² *Frag. der Vorsok.*⁵, 22 B 57.

⁸⁴ *Frag. der Vorsok.*⁵, 21 B 23.

⁸² *Frag. der Vorsok.*⁵, 22 B 40.

⁸⁵ *Frag. der Vorsok.*⁵, 21 B 26.

tion, taboos of various kinds, music, and mathematical studies were all ingredients. In their cosmological physics they seem to have adopted and accommodated to their own use the theories of the Milesians;⁸⁶ but the distinctive characteristic of their whole doctrine was the tenet that all things are numbers. Numbers they held to be groups of units, the units being material points between which there is "breath" or a material "void"; and they quite literally identified all phenomenal objects with such aggregations of points, without, of course, considering whether these material points were themselves divisible or not.⁸⁷ This was rather a materialization of number than a mathematization of nature, but it undoubtedly seemed to the Pythagoreans to be the only way of explaining the physical world in terms of those genuinely mathematical propositions which they had proved to be independently valid and which they therefore took to be the nature of the only reality that they could imagine, the reality of the physical world. The influence in many directions of this first crude step of mathematical physics was later to be enormous, as was the Pythagorean application of mathematical conceptions to astronomy. In a sense it was the first attempt to apply the results of purely deductive reason to natural philosophy, but it was too crude and too unconscious of itself to be fruitful at once; and so it was not from Pythagoreanism directly that the impetus which this method gave to Greek thought came.

According to one ancient tradition⁸⁸ Parmenides had been strongly influenced by a member of the Pythagorean sect. As his home was Elea in Magna Graecia, it is not unlikely that he was acquainted with the Pythagoreans; and the example of mathematical proof learned from them may have determined the rigorously deductive form of his argument and may have been the origin of his confidence in this method. Beyond any reasonable doubt, however, despite the recent fashion to deny it,⁸⁹ it was the book of Heraclitus that aroused Parmenides to protest and to formulate the argument which at first must have seemed to be a final check to all natural philosophy. It is clear

⁸⁶ Cf. *Crit. Pres. Phil.*, p. 398.

⁸⁷ Cf. *Crit. Pres. Phil.*, pp. 386-92.

⁸⁸ D. L., IX, 21; cf. Buffet, *E. G. P.*², p. 170.

⁸⁹ Cf. for example Gigon, *Der Ursprung der griechischen Philosophie*, p. 245, and Jaeger, *Theology of the Early Greek Philosophers*, pp. 101, 123, and especially 129. They do not follow Reinhardt and Abel Rey in placing Parmenides before Heraclitus but treat them as if they were entirely ignorant of each other. It is certain that Heraclitus, who attacked so many people by name, did not know Parmenides, for, if he had, he would certainly have attacked him first of all.

enough that he intended his criticism to apply not to Heraclitus *alone* but to *all* accounts of the world of change, those formulated by natural philosophers and those implicitly adopted by laymen alike. He says as much,⁹⁰ but his most virulently scornful description of the error that pervades all such accounts reproduces the peculiar and characteristic expressions of Heraclitus.⁹¹ This is reasonable, for Heraclitus had made explicit what was implicit in all the theories of a changing world and had developed to the extreme of their logical consequences and as a positive doctrine the unformulated assumptions of naïve common sense upon which all the natural philosophers had hitherto unconsciously built. Parmenides saw this, that the opinions of all men were unconscious and unsystematic Heracliteanism and that in refuting Heraclitus he was refuting them all; that is why he employed the significant phrases of Heraclitus to characterize the opinions of men in general. Even the form into which Parmenides put his book bespeaks its origin as a protest inspired by the haughty words of Heraclitus. Parmenides was the first Greek philosopher, and apart from Empedocles who imitated him in this the only one, to express himself in poetry, poetry far different in tone from the *silloi* of Xenophanes, the epics of Homer, and the didactic poems of Hesiod and not to be understood as mere imitation of any of them. It is at least possible that he intended his hexameters themselves to be a reply and a reproach to Heraclitus' oracular and apophthegmatic style and that by using the most solemn and noble form of expression in the Greek tradition he meant to emphasize the seriousness and supreme objectivity of his own argument in contrast to the cryptic symbolism and sibylline tempestuousness of Heraclitus.⁹² However it may be with the poetical expression, the proëm of Parmenides' book was certainly meant to contrast to the intuitionist subjectivism of Heraclitus the universal objectivity that he claims for his own argument. This whole argument is the speech of an unnamed goddess whom he reaches by traveling on a road apart from the path of men⁹³ through the gates of day and night,⁹⁴ which Justice, the ineluctable Law of Being,⁹⁵ opens for him; and this goddess warns him to beware of the senses and to judge by *Logos* alone.⁹⁶ Heraclitus

⁹⁰ *Frag. der Vorsok.*⁵, 28 B 1, 30; 28 B 8, 51-52, 55, and 61; 28 B 19, 3.

⁹¹ *Frag. der Vorsok.*⁵, 28 B 6 with Kranz's notes; cf. references in *Crit. Pres. Phil.*, p. 383.

⁹² Cf. *Frag. der Vorsok.*⁵, 22 B 93 and 92.

⁹³ *Frag. der Vorsok.*⁵, 28 B 1, 27.

⁹⁴ *Ibid.*, 28 B 1, 11-14.

⁹⁵ Cf. *Ibid.*, 28 B 1, 14ff. and 28 B 8, 13-15 and 30-31.

⁹⁶ *Ibid.*, 28 B 7.

too had bidden men distrust the senses and heed the LOGOS; but this LOGOS all were to find by introspection as he had, because it is common to all.⁹⁷ Parmenides, however, in effect denied that introspection is any more trustworthy than sensation, for the insight of men can be erroneous too;⁹⁸ for his own argument he claimed exemption from the possibility of human error by representing it to be the revelation of a goddess who is nameless and who dwells beyond the Law of Being. The LOGOS that Heraclitus bade men heed declared all things to be one⁹⁹ because it was the formula of the incessant change of which they are part and which they would therefore discover within themselves; but the LOGOS by which Parmenides is bidden to judge is independent of men and of the world—it is pure reason which is the sovereign canon of Being itself.

Everyone had assumed that something exists. The whole argument of Parmenides proceeds by applying the law of the excluded middle to prove that the identity of what is precludes the possibility of any characteristic except just *being*. This, he maintained, invalidates all the theories which, disregarding the fact that a thing is what it is, proceeded to talk about change as if not every object of thought and so every existing thing had either to be or not to be; here lies the decision, but to put the case is to answer it, for to think of anything is to think of it as being. The essential nature of Being, the inner necessity that a thing is identical with itself, holds it fast in bondage and allows it neither to come to be nor to pass away. The impossibility of any and all process is established by the logical consequences of identity.¹⁰⁰ As for all false notions of a world of difference and of change, the goddess lays bare the fundamental error that underlies them by showing that a whole plausible cosmology is derivable from the minimal error of positing two things that need not be identified.¹⁰¹ This men do, in Heraclitean fashion believing that to be and not to be are the same thing and not the same;¹⁰² and so the articulate world is simply the consequence of an erroneous human convention. Heraclitus had declared that the LOGOS shows that all things are one; in a

⁹⁷ *Frag. der Vorsok.*⁵, 22 B 107, 50, 101, 2, and 72.

⁹⁸ *Frag. der Vorsok.*⁵, 28 B 6, 5–6.

⁹⁹ *Frag. der Vorsok.*⁵, 22 B 50.

¹⁰⁰ Cf. *Crit. Pres. Phil.*, pp. 383–84.

¹⁰¹ *Frag. der Vorsok.*⁵, 28 B 8, 51–54. For the correct interpretation of these lines cf. Jeanne Croissant, *Mélanges Desrousseaux*, pp. 99–104. Mlle. Croissant does not mention Plato, *Sophist* 243 D–244 B, which proves her interpretation to be correct, if further proof were needed.

¹⁰² *Frag. der Vorsok.*⁵, 28 B 6, 8–9.

radical sense that he could not have contemplated the *Logos* of Parmenides, not intuition but strict deductive logic, did conclude that, since nothing but Being can be, Being is all that is, an increate, imperishable, immobile, indivisible, homogeneous, and continuous unit that neither was nor will be but simply is.¹⁰³

Once the argument of Parmenides had been stated, it was no longer possible to make the tacit assumptions and to leave undefined the indefinite conceptions with which all earlier philosophy had operated. The possibility of motion and multiplicity, the very possibility of the physical world had been impugned; and natural philosophy was forced to face the logical, epistemological, and metaphysical problems of identity and difference, of appearance and reality, of truth and error. The Parmenidean logic had rudely checked the course of Greek thought, but the check was also a mighty stimulus; and, working alternately as stimulus and corrective check, it determined the subsequent course of Presocratic philosophy which was in the main a series of attempts to save the world of nature without transgressing the rules of the new logic.

The most significant and fruitful of these attempts were the systems of Empedocles, Anaxagoras, and the Atomists. Empedocles¹⁰⁴ posited the existence of four physical bodies: earth, water, and fire (the three phases of Heraclitus' process) and air (for he had discovered that atmospheric air is a material body); and these four bodies, each with its own characteristics, were stated to be each identical with itself throughout, homogeneous, forever unchanged, each equal to each, four physical copies, in fact, of Parmenidean Being. The mingling and rearranging of these bodies was to account for all the varied complexes of the articulate world without impairment of the identity of any real entity or infection of it with change; but, the bodies themselves being immobile in accordance with Parmenidean law, Empedocles raised to cosmic significance as two other entities the forces of Love and Strife, evidence for which he saw throughout the living world, and supposed that their pervasion of the four bodies mingles them together and dissolves the mixture. Two forces were posited and not one because the Parmenidean law of identity seemed to require that the cause of mingling or of dissolution should not in either case have the contrary character as well. According to this scheme all that really exists is six entities, each conforming explicitly to the requirements of Parmenides' logic, and all together constituting

¹⁰³ *Frag. der Vorsok.*⁵, 28 B 8, 3-49.

¹⁰⁴ Cf. *Crit. Pres. Phil.*, pp. 398-99.

the whole of existence, for there is nothing empty of them; ¹⁰⁶ their mere mechanical rearrangement, proceeding from a thoroughly homogeneous mixture of the four bodies pervaded entirely by Love to their complete segregation when they are pervaded entirely by Strife and back again in an endless cycle, produces in each hemicycle all the possible complexes of an articulate world. Generation and destruction are expressly declared to be impossible, merely conventions of human language; ¹⁰⁶ and all the multitudinous differences in the world are simply the external appearances of the various combinations of the identical roots.¹⁰⁷

The gaping lacuna in Empedocles' construction was its neglect of the problem of the part and the whole; this is most obvious and painful in the "thorough mixture" of the four bodies, for in this state it is apparent that these bodies must have minimal parts, but it also vitiates the construction at every step. Zeno, the follower of Parmenides, attacked Empedocles; and there are indications that in his attack he put his finger upon this sore point.¹⁰⁸ He had already counter-attacked the Pythagoreans who had sought to show that Parmenides' thesis in leading to a denial of multiplicity is self-contradictory; using against them their own dialectical method and proceeding from their own hypothesis of material points, Zeno had proved that the assumption of multiplicity entails contradictions more absurd than does the Parmenidean thesis, for one had either to make his multiple parts atomic or to assert the infinite divisibility of matter and the results of either choice are insoluble paradoxes,¹⁰⁹ the ghosts of which still arise periodically to haunt the conception of continuity in all its aspects.

It was objection to Empedocles' explicit assumption that the Parmenidean law of identity need be asserted of only a limited number of bodies that produced the next important attempt, however, to reconcile natural philosophy with Eleatic logic. Anaxagoras,¹¹⁰ who had been brought up in the Ionian tradition and in whom the older philosophy and the new logic of the West were first combined, ob-

¹⁰⁶ *Frag. der Vorsok.*⁵, 31 B 14.

¹⁰⁶ *Frag. der Vorsok.*⁵, 31 B 8 and 11.

¹⁰⁷ *Frag. der Vorsok.*⁵, 31 B 23.

¹⁰⁸ Cf. *Crit. Pres. Phil.*, p. 95, n. 401.

¹⁰⁹ Cf. *Crit. Pres. Phil.*, p. 398.

¹¹⁰ Cf. *Crit. Pres. Phil.*, pp. 400-401.

jected that all so-called "mixtures," even such things as hair and flesh, have characteristics of their own as unique as those of earth, water, air, or fire and so are in the same sense entities which must be eternally identical. Eleatic logic requires, he argued, that no new characteristic whatever be derived from any other; and therefore apparent change implies that everything be a mixture of everything else just as everything existed in the precosmical mixture of Anaximander. It was, in fact, this *APEIRON* of Anaximander's that Anaxagoras adopted and sought to "modernize" in accordance with the new logic. He consciously chose one horn of Zeno's dilemma and declared that matter is infinitely divisible, that there is no least part of *anything*, and that therefore everything must contain some of everything else. The motion of the *APEIRON* could no longer simply be assumed as it had been tacitly assumed by Anaximander, although the complete mixture had to be set in motion if it was to be articulated. It had, however, to be moved by something other than itself and something which itself obeys the law of identity. On the other hand, since the process of separation on this theory need not be reversible, Anaxagoras felt it necessary to posit only one kind of motive entity instead of Empedocles' two; and the name that he gave to this entity was the source of his greatest influence upon later philosophy. Empedocles had derived his Love and Strife from the impulses that he saw manifested by all living creatures; Anaxagoras ascribed the origin of motion to *NOUS*, "Mind,"¹¹¹ and therewith introduced into Greek philosophy the potent notion that the natural world is somehow the result of reason, that reason is not a part of nature nor a product of it but different in kind from it and sovereign over it.

Anaxagoras like Empedocles reduced all change to local translation, which, since no void was admitted, was simply rearrangement; and, because the unit in the rearrangement retained its identity, this kind of change seemed to them not to transgress the logic of Parmenides. This Melissus of Samos, the last great Eleatic critic, proved to be erroneous.¹¹² He impugned the mechanism of both systems by arguing that, if there is no void, there cannot be motion of any kind; but he went beyond this to prove that both systems restricted illegitimately the law of identity which they professed to respect. If the world exists, its very arrangement, he argued, can change no more

¹¹¹ *Frag. der Vorsok.*⁵, 59 B 12, 13, 14.

¹¹² Cf. *Crit. Pres. Phil.*, pp. 402-403.

than can any of the ingredients of that arrangement. Moreover, process of any kind implies a moment of initiation both temporal and spatial, and that moment involves the appearance of characteristics, at least of arrangement, that did not before exist. This being impossible, there can be no differentiation of any kind, from which it follows that what exists must be completely homogeneous and unlimited in extension. The very differentiation of material in the systems of Empedocles and Anaxagoras, therefore, is incompatible with the Parmenidean laws. That differentiation itself implies separation, and separation involves motion; but, motion being impossible, the one means of differentiation which had seemed to remain for those who accepted Parmenides' logic is shown to be inconsistent with it. Finally Melissus pointed out that, since even Empedocles and Anaxagoras had to deny the validity of the evidence of the senses in order to maintain the truth of their theories, the evidence of the senses cannot be adduced against the strict Eleatic position either, for it is in fact admitted by those who would maintain an articulate world of change that the logical laws are stronger than the evidence of sensation. It follows, then, from the very arguments of Empedocles and Anaxagoras that, if one were to assume a multiplicity of entities, each entity would still have to be what Melissus had declared the one Being to be.

Leucippus and his followers accepted this implied challenge.¹¹³ Since there could be no motion without a void, they asserted the existence of a void, a physical non-being;¹¹⁴ and, inasmuch as Melissus had shown that a commencement of motion contradicts the law of identity, they abandoned such forces as Anaxagoras' *NOUS* and, making explicit the old, naïve Ionic assumption, declared that constant motion is an unvarying characteristic of all matter. Melissus' proof of the necessary homogeneity of all matter they accepted; and, since the sensations could no longer be defended as true witnesses anyway, they denied that the characteristics apparent in complex bodies had any existence at all. Anaxagoras, by asserting the infinite divisibility of matter, had laid himself open to Melissus' argument that he had no reason to assume difference save for the arbitrary division which involved an initiation of motion; the Atomists therefore accepted the other horn of the dilemma and assumed that the particles of matter are indivisible and unchangeable, differing from one

¹¹³ Cf. *Crit. Pres. Phil.*, pp. 403-404.

¹¹⁴ Cf. *Frag. der Vorsok.*⁵, 68 B 156.

another only in size and shape and, except for their motion, having no other characteristics at all. Since a consistent belief in the reality of characteristics had required Anaxagoras to assert that everything is in everything and Melissus had shown that this amounts to a denial of difference between the whole and the parts, these characteristics were useless encumbrances in a physical construction, and Leucippus simply denied their existence and explained the apparent differences of complex bodies as illusory epiphenomena of the real difference of the number, size, shape, arrangement and position of atoms moving in the void.

The Atomic system was the last great construction of Presocratic philosophy. In a sense it can be envisaged as the first such construction, Anaximander's, purged of its indefiniteness and refined by the logic of Parmenides, the subsequent attempts to overcome the critique of Parmenides, and the rebuttal of those attempts by the Eleatic critics, Zeno and Melissus. For all its clarity and simplicity and elegance, however, Atomism had very little effect upon the philosophy to follow, for the later attempt of Strato to combine it with Aristotelianism was abortive and Epicurus' adoption of it reduced it to a utilitarian argument in support of his ethics. Its lack of influence may have been due in part to its rejection of the notion of law and meaning in the world of nature, in part to the fact that it was an arbitrary construction unsupported by evidence and containing within itself no possible sign of its own validity. What reason could it adduce for the assumptions on the basis of which it denied the conclusions of Parmenides? Not the evidence of the senses, for the senses, which give no indication that there are atoms and void, the Atomists denounced as untrustworthy witnesses. Democritus had to assume that there is a genuine knowledge of the mind that discerns the truth to which the bastard knowledge of the senses cannot penetrate.¹¹⁵ Yet he must have felt uneasily that there is in the Atomic system no justification for such a distinction and no foundation for the intelligence which he had to assume; and he has left a fine ironical expression of that feeling, a snippet of a dialogue in which the senses, whose reports have been rejected as mere conventions by the mind that asserts the real existence of atoms and void, reply: "Wretched Mind, who get your evidence from us and then try to overthrow us, our overthrow is your destruction."¹¹⁶

¹¹⁵ *Frag. der Vorsok.*⁵, 68 B 11.

¹¹⁶ *Frag. der Vorsok.*⁵, 68 B 125.

Such a peripeteia in the drama of Greek thought had already occurred. Zeno and Melissus seemed to have shown not only that any possible natural philosophy but also all discursive thought on any subject could be proved self-contradictory by the use of Eleatic logic. The serious hope of accounting for the world on some cosmological principle consistently developed had been extinguished; and such sporadic attempts as were still made in this direction were like the last meaningless twitchings of a broken habit, uncoordinated repetitions of a pattern of past meaning. Hippo of Samos and Diogenes of Apollonia, who sought to derive the articulate world, the one from water, the other from air, are our chief witnesses to the fact that there were still men who could talk as if Parmenides had never lived, witnesses also to the fact that men who are in the forefront of some specialized field of knowledge may in all others be uncritical traditionalists and inconsistent eclectics, for such were both of these men in philosophy, though both had done important and original work in biology and physiology. Others devoted themselves to some speciality such as mathematics or medicine and simply disregarded the fundamental difficulty with which science as a whole had been confronted; but the attitude of those who at this time claimed the ability and assumed the title of educating all the Hellenes was determined by that difficulty. The threat to reason that Democritus had so ironically made the senses deliver was carried out by Protagoras, against whose dictum that nothing is any more so than so he was himself constrained to argue at length.¹¹⁷ Protagoras wrote a book attacking the Eleatic dogma of the unity of Being,¹¹⁸ not with the purpose, however, of defending the possibility of an objectively true account of the physical world but in order to show that Eleatic logic can overthrow the Eleatic conclusions as well as the evidence of the senses, that there is consequently no objective canon, and that therefore what appears to be to anyone at any time has just as much and just as little valid claim to be so as what appears at any other time to him, when he is different, or to any other person. Parmenides had enthroned objective truth so far above men that it seemed to be inaccessible, useless, and a mere mocking negation of man and of his world. Protagoras expressly bade men desist from chasing such futile phantoms and reassured them that whatever appears to anyone to be true is true

¹¹⁷ *Frag. der Vorsok.*⁶, 68 B 156.

¹¹⁸ *Frag. der Vorsok.*⁶, 80 B 2.

when it so appears, though one thing may be more useful than another: man himself, he declared, is the measure of all things.¹¹⁹

The pendant to the relativism of Protagoras was the nihilism of Gorgias, who seized upon the Eleatic method to prove that nothing whatever exists, that it is incomprehensible if it does exist, and incommunicable even if comprehensible.¹²⁰ So Eleatic Being, having engulfed the world, appeared to have swallowed itself; and Eleatic logic, having put an end to natural philosophy, seemed to have put an end to itself also. Something, however, was left. To Gorgias and Protagoras and their lesser fellows Eleatic logic, especially as it had been employed by Zeno, seemed to be an instrument for proving and disproving any proposition whatever, an instrument as if made to order for their purpose, which was the instruction of pupils in the art of argument as such. So much of positive influence the work of the Eleatics had upon the so-called Sophists, who, just because of their unconcern for any content, studied and developed and refined the purely formal aspect of Eleatic method and in so doing prepared the instrument of Socratic dialectic. This was the instrument, as the example of the living and dying Socrates was the inspiration, of Plato's genius, whereby the curse of Eleatic formalism was lifted from philosophy and the revelation of Parmenides was read aright; in the light of that revelation a cosmos was restored to man in which the MIND of Anaxagoras, the endless process of Heraclitus, the wandering souls, which Empedocles could not deny and could yet not naturalize in his cyclical mechanism, all found their proper places. In the *Timaeus* Presocratic philosophy had its resurrection and transfiguration, the parts that were meaningless made meaningful in a whole that is far more than their mere summation.

¹¹⁹ *Ibid.*, 80 B 1.

¹²⁰ *Frag. der Vorsok.*⁵, 82 B 3.

HERMANN DIELS. *Die Fragmente der Vorsokratiker.* Fünfte Auflage herausgegeben von **WALTHER KRANZ.** Berlin, Weidmannsche Buchhandlung, 1934-1938. Vol. I, pp. xiii + 482; vol. II, pp. 426; vol. III (Wortindex, Namen- und Stellenregister), pp. 654.

In 1922 this work was published in its fourth edition, but that was only an anastatic reprint of the previous editions eked out by supplementary sections containing additions and corrections. Diels in his preface expressed his regret at being prevented from giving his collection the revision and rearrangement which he then considered desirable; at the same time he indicated what this rearrangement would have been. Now Kranz, the author of the word-index which accompanied the second edition, has attempted to realize the plan which Diels himself had not the opportunity to carry out. The material of the supplements of the fourth edition has been incorporated into the text in its proper place along with a considerable amount of material brought to light by the subsequent research of Kranz himself and of other scholars. The arrangement of the work has been changed by placing the early cosmological, astrological, and gnomological material at the beginning of the first volume, the sophistical material at the end of the second; the order of the fragments within each section remains the same as before except for slight changes in the sections devoted to Parmenides and Empedocles (changes which Diels himself desired to make)

and the creation for Anaximander of a section B containing five passages supposedly preserving the original words of that philosopher. The translation of the original fragments has been "modernized," but wherever the interpretation deviates from that of Diels this has been duly noted; it has been the purpose of the new editor "das Werk im Geiste von Hermann Diels nach dem Masse der eigenen Kraft zu erneuern."

The mere checking of references and readings in a collection of this extent and variety is an enormous task, and errors as well as omissions are bound to survive the most painstaking editing. Witnesses to this fact are the two lists of "Zusätze und Berichtigungen" (vol. II, pp. 419-426 and vol. III, pp. 652-654) to which it is important to call the attention of all who use the collection. There remain corrections and additions which have escaped even these lists, however; and rather than pronounce an enthusiastic but general eulogy on a work, the character of which is already known and appreciated, I would pay my deep respect to the importance of the collection and to the pious industry of Kranz by supplementing these lists to the best of my ability.

ORPHEUS: I, p. 3, 3: cf. Pindar, *Pyth.* IV, 176-177. PHERCYDES: I, p. 44, 11: add Maximus Tyr. VII, 4 (p. 81, 9-13, Hobein). I, p. 46, 2: καὶ before τῷ should be excised (cf. Bonitz and Ross). I, p. 46, 4: for VI 9 read V 1, 9. THALES: I, p. 77, 7: on τινος see Plato, *Theaetetus* 152 E and *Cratylus* 402 B. I, p. 77, 12: It is wrong to stop the quotation here (983 B 33) for 984 A 2-3 shows that Aristotle's information about Thales is uncertain (Θαλῆς μέντοι λέγεται οὕτως ἀποφῆναι . . .) and the next sentence (Ἰππονα γὰρ . . .) indicates that he himself is aware that some of what is really Hippo's may have been transferred to Thales; with p. 77, 6 cf. *De Anima* 405 B 3. I, p. 79, 27: cf. 22 A 9. Add under Thales: Iamblichus, *In Nicom. Arith. Introd.*, p. 10, 8-10 (Pistelli). ANAXIMANDER: I, p. 82, 10: cf. Heidel, "Anaximander's Book, . . ." (*Proc. Am. Acad. of Arts and Sciences*, LVI [April, 1921], pp. 239-288); Kranz reprints the note of Diels refuted by Heidel, *op. cit.*, p. 242, n. 9. I, p. 85, 9: The excerpt will not construe without the preceding φανερόν δὲ here omitted. I, p. 82, 35: for or. 36 read or. 26. I, p. 86, 5, note: "Verwechslung m. Anaxagoras"; this is hardly credible, for Anaxagoras in the original is treated only four lines below (cf. also Heidel, *Class. Phil.*, VII [1912], p. 230, n. 3). I, p. 88, 33: ἐπ' ὀλίγον χρόνον μεταβῆναι, corrected in ed. 3, is printed here, but the false reading of eds. 1 and 2 (ἐπ' ὀλίγον μεταβῆναι) is reprinted in the index (III, p. 277 B 19) from the index of 1910. I, p. 90, 8 ff.: cf. Heidel, "Anaximander's Book, . . .," pp. 255-260. ANAXIMENES: I, p. 93, 26: Heath's suggestion, εἶναι for εἶναι (*Aristarchus of Samos*, p. 42) should be mentioned. I, p. 94, 36-37: For the whole sentence

and Galen's criticism cf. I, p. 124, 20 ff.; the sentence of Hippocrates, *De Nat. Hom.* I, on which this is a commentary, runs: οὔτε γὰρ τὸ πᾶν ἡέρα λέγω τὸν ἄνθρωπον εἶναι οὔτε πῦρ οὔτε ὕδωρ οὔτε γῆν οὔτε ἄλλο οὐδέν, ὅτι μὴ φανερόν ἐστιν ἐνὲν ἐν τῷ ἀνθρώπῳ.¹ The last sentence of § 1 is printed in 30 A 6 but all of § 1 at least should be printed somewhere. I, p. 95, 11: cf. also Aristotle, *Meteorology* 367 A 33-B 4. XENOPHANES: I, p. 122, 38: cf. Aristotle, *Meteorology* 357 A 15-18. I, p. 123, 16-17: cf. Aristotle, *Metaphysics* 984 A 29-31. I, p. 124, 25: to the reference "Arist. Metaph. 989 A 5" add: but contrast 1014 B 33. HERACLITUS: I, p. 145, 32-33: add Aristotle, *Metaphysics* 1062 A 31-35. I, p. 146, 17: It is misleading to quote only ὥσπερ Ἡ. φησιν ἅπαντα γίνεσθαι ποτε πῦρ, for this is not even the whole sentence; it is intelligible only if read in context (*Physics* 204 B 30 ff.). Simplicius, *Phys.*, p. 480, 30 ff. should be cited to show how he understood the sentence. I, p. 146, 18: for 94 read 294. I, p. 147, 24: de Anima 405 A 24 should be 405 A 25 and the quotation should not stop where it does, for lines 26-29 belong to Aristotle's report of Heraclitus. I, p. 148, 34: cf. Sextus, *Adv. Math.*, VII, 349. I, p. 154, 6: It should be noted that Bywater ascribed καὶ ψυχαὶ . . . ἀναθυμῶνται to Zeno. I, p. 156, 2: place question mark after καλεῖ. I, p. 157, 3-4: Heidel's suggestion, δοκούντων (ὁ or ἀ) ὁ δοκιμώτατος γινώσκει φυλάσσαν, should have been recorded. I, p. 161, 16: All the desperate conjectures concerning θεὸν δίκαιον are listed but not Heidel's correct note that it comes from Plato's *Cratylus* 412 C-413 D. I, p. 165, 8-11: Reference to Heidel's treatment of B 67 should not have been omitted (*Proc. Am. Acad. of Arts and Sciences*, XLVIII [1913], pp. 704-708); his <μύρον> is certainly better than Diels' <πῦρ>. I, p. 166, 12-14: Did Heraclitus say ἀεικέα· ἄκεα? Cf. the pun μαινόμενοι· μαίνεσθαι in frag. B 5. I, p. 168, 4-10: On B 76 see A. J. P., LVI (1935), p. 415. I, p. 181, 1: ἐποιήσατο ἑαυτοῦ can mean only "claimed as his own" (cf. Herodotus, I, 129, 2), not "machte er sich daraus eine eigene Weisheit." I, p. 181, 1 (note): for Ion 35 B 4 read 36 B 4. EPICHRMUS: I, p. 191, 23: for V. P. 226 read V. P. 266. I, p. 198, 5: On Diogenes Laertius, III, 15 the old reference, *Phaedo* 96 B, is given; there is no such argument for the ideas there or elsewhere in the dialogues, but cf. Alexander, *Metaph.*, p. 78, 15. ALOMAEON: I, p. 212, 14-15: cf. Hartung's note in his edition of White's *Natural History of Selborne*, p. 52, n. 1. I, p. 213, 28: cf. [Aristotle], *Problem.* 897 B 25-26; Plato, *Timaeus*, 91 A-B and 73 C-D. I, p. 214, 10: cf. Hippocrates, *περὶ φύσιος παιδίου* § 30 (VII, p. 536 L.). I, p. 215, 4-6: cf. Philo, *De Opificio Mundi* 44 (I, p. 14, 1-2 CW). I, p. 215, 11 ff.: cf. Aristotle, *Topics* 145 B 7-8; Plato, *Timaeus*

¹ The passage was called to my attention by Dr. L. Edelstein.

82 A-B. Iocys: I, p. 216, 17-20: For Plato, *Laws* 839 E-840 A the text of Burnet or England (neither of which is mentioned) is better than that of Hermann here printed. PARMENIDES: I, p. 218, 10: for B 1, 34-36 (which is Diels' old reference) read B 7, 3-5. I, p. 222, 2-3: Here should be compared not Alexander, *Metaph.*, p. 45, 2 but Aristotle, *De Generatione* 318 B 2-7 which explains Aristotle's equation of fire with $\delta\nu$ and cold (earth) with $\mu\eta\delta\nu$. I, p. 222, 40 ff.: Why print this fragment of Eudemus without even mentioning Aristotle, *Physics* 186 A 22-23 on which it is based? I, p. 223, 12-14: The *Timaeus* reference should be 37 E-38 A, that to the *Parmenides*, 140 E ff. I, p. 223, 38-41: *De Generatione* 336 A 3-6 should not be printed under Parmenides without a reference to Philoponus, *De Gen.*, p. 287, 25-26; the passage, however, is not really a reference to Parmenides at all (cf. Cherniss, *Aristotle's Criticism of Presocratic Philosophy*, p. 229, n. 48). It is amazing that Aristotle, *Metaphysics* 984 B 1-4 is not printed under A 35 (or anywhere else), although it is the ultimate source of the notion that Parmenides made fire the efficient cause and earth the material cause. I, p. 224, 18: <modi> should not be added; cf. Mayor and Plasberg, *ad loc.* I, p. 225, 20: Kranz retains without comment Diels' note on $\delta\iota\alpha\sigma\upsilon\rho\omicron\nu\ \kappa\acute{\upsilon}\beta\omicron\nu$: "das pythagoreische Zentralf Feuer vergleicht sich mit der $\pi\upsilon\rho\acute{\alpha}\theta\eta\varsigma\ \sigma\tau\epsilon\phi\acute{\alpha}\nu\eta$ in der Mitte des P.schen Kosmos A 37." Diels read $\iota\phi'\ \phi'$ $\pi\acute{\alpha}\lambda\iota\nu\ \pi\upsilon\rho\acute{\alpha}\theta\eta\varsigma$ in that passage and so had a central $\pi\upsilon\rho\acute{\alpha}\theta\eta\varsigma\ \sigma\tau\epsilon\phi\acute{\alpha}\nu\eta$; but Kranz reads $\pi\epsilon\rho\iota\ \delta$, which eliminates any such central fiery ring, and moreover expressly says (p. 224, 3 note) that he follows Fränkel who denies this feature to Parmenides' cosmos. I, p. 226, 28: for $\delta\delta\acute{\epsilon}\iota$ read $\delta\delta\acute{\epsilon}\eta$. I, p. 227, 1-6: Cf. Aristotle, *De Gen. Animal.* 765 B 18-26 which probably represents Parmenides' reasoning more accurately than does the passage from *De Part. Animal.* I, p. 234, 28: close quotation after $\gamma\eta\nu$. I, p. 240, 3-4: $\kappa\acute{\alpha}\kappa\acute{\alpha}\iota\nu\ \kappa\alpha\tau'\ \alpha\upsilon\tau\omicron\ \tau\acute{\alpha}\nu\tau\acute{\alpha}$ Kranz translates: "auch jenes für sich gerade entgegengesetzt"; but he keeps Diels' note ($\alpha\upsilon\tau\omicron$ Apposition zum Adverbium), in which case "für sich" cannot be right. ZENO: I, p. 251, 25: Why is this printed under "Apophthegmatik" while the rest of the passage is given under "Lehre" (p. 252, 9 ff.)? It is the introduction to Zeno's aporia concerning multiplicity. I, p. 252, 11: instead of $\mu\eta\delta\acute{\epsilon}\ \epsilon\nu$ read $\mu\eta\theta\acute{\epsilon}\nu$ as in the parallel passage (Simplicius, *Phys.*, p. 139, 1). I, p. 252, 13: The preceding lines of Simplicius (*Phys.*, p. 99, 7-10) should have been quoted and also *Phys.*, p. 139, 3-5, since here with regard to this same quotation from Eudemus Simplicius practically admits the falsity of his interpretation as against that of Alexander. I, p. 254, 9: $\tau\acute{\omega}\nu$ A should be excised as $\delta\pi\omicron\ \tau\omicron\upsilon\ \epsilon\sigma\chi\acute{\alpha}\tau\omicron\upsilon$ shows (line 10), and this whether the traditional interpretation or that of Lachelier and Ross be adopted (cf. Lee, *Zeno of Elea*, pp. 89-90). I, p. 254, 18: $\tau\acute{\alpha}\ \delta\epsilon$ B makes no sense; read $\tau\omicron\ \delta\epsilon$ B (cf.

τὸ Γ in line 12 and Lee, *op. cit.*, p. 92). I, p. 254, 14: Instead of τὰ B read τὸ πρῶτον B with Cornford, Lee, and Ross; not τὰ B but only the first has passed *all* the gammas. I, p. 254, 16: ἴσον χρόνον . . . ὥς φησι should be omitted as a gloss (so Lee and Ross). I, p. 257; 5 (frag. B 3): Diels in the *Nachtrag* to edition 4 contended that the argument ascribed by Porphyry to Parmenides but by Simplicius and Alexander to Zeno (Simplicius, *Phys.*, pp. 139, 27-140, 6) must be the same as frag. B 3 because Simplicius quotes this fragment to prove that the argument cited by Porphyry belonged to Zeno and not to Parmenides. This reason is not cogent, for the subject of ὅτε καὶ ἐν αὐτῷ φέρεται τῷ τοῦ Ζήνωνος συγγράμματι is ἡ ἐκ τῆς διχοτομίας ἀπορία (cf. Simplicius, *Phys.*, p. 140, 24) and there may have been several *different* applications of the διχοτομία in Zeno's book. Anyway, the argument of B 3 is obviously *not* the same as that of pp. 139, 27-140, 6. It is the more surprising that Kranz does not print the passage in question, because in his note reproducing Diels' statement he does print Simplicius, *Phys.*, p. 116, 8-18 which gives an argument ascribed by Porphyry to Parmenides and which was cited by Diels in comparison with the passage of Porphyry in pp. 139-140. This passage is not a διχοτομία at all. Our passage ought, then, to have been printed, as also Philoponus, *Phys.*, pp. 80, 23-81, 7 and Simplicius, *Phys.*, p. 139, 21-22 (a quotation from Themistius). I, p. 257, 5 note: In the text of Simplicius, *Phys.*, p. 116 in line 7 from the bottom of the page ἀλλ' οὐτε τῷ μὴ εἶναι is a misprint for ἀλλ' οὐτε τῷ εἶναι. MELISSUS: I, p. 259, 30: This sentence should not be printed as if it ended with εἶναι τὸ ὄν, for it continues: καὶ τὰ φυσικὰ τὰ ὄντα, ταῦτα δὲ ἐστὶ τὰ αἰσθητά. I, p. 266, 13: for 589 B 25 read 986 B 25. I, p. 269, 2 and 3: Kranz reads γερόμενον in both places as did Diels, against which cf. Calogero, *Studi sull' Eleatismo*, p. 64, n. 1. I, p. 275, 1-2: ἐκ τοῦ ἐκάστοτε ὁραμένου Kranz translates "auf Grund des jedesmal Gesehenen" (Diels: "auf Grund des einzelnen Wahrnehmung"); but the phrase goes with μεταπίπτειν: "appears to change from what is seen at any given time" (cf. p. 274, 8: ὅ τι ἦν καὶ ὃ νῦν οὐδὲν ὁμοίον εἶναι parallel with ἑτεροιοῦσθαι as here). EMPEDOCLES: I, p. 284, 25: for ἀκηκοὼς read ἀκηκοῦς. I, p. 288, 20: After A 29 add Aristotle, *Metaphysics* 996 A 5-8 and 1001 A 9-15. I, p. 290, 27: What is printed here is only part of a sentence; the quotation ought to begin from *Physics* 252 A 8, else the whole construction is changed and there is no way of knowing that Aristotle's sentence is meant to show that for Empedocles πέφυκεν οὕτως or ἀνάγκη is the real ἀρχή. So Capelle, taking just the part printed by Diels and Kranz, translates (*Die Vorsokratiker*, p. 198): "Empedokles scheint zu behaupten dass zufolge der Notwendigkeit die Liebe und der Streit abwech-

selnd die Dinge beherrschen . . .,” whereas Aristotle really says: “It seems that Empedocles would mean that ‘such is the nature of things’ is the principle when he says that . . .” (cf. Simplicius, *Phys.*, p. 1183, 24 ff.). I, p. 290, 38: add *Metaphysics* 988 A 14-16. I, p. 290, 39-41: Why quote *De Gen. et Corr.* 333 B 19, which says that the *στοιχεῖα* were naturally prior to the *θεός* (i. e. the Sphere), and not 315 A 19-25, where Aristotle says that it is unclear whether Sphere or elements are prior, or *Metaphysics* 1091 B 10-12, where he contends that Love was the primary *στοιχείον*? I, p. 291, 1-7: It is strange that Philoponus on *De Gen. et Corr.* 315 A 3 is printed but not Aristotle’s own words (315 A 3-25) when Philoponus has nothing that the Aristotelian passage has not and lacks much that it has. I, p. 292, 27: In the *Zusätze* (II, p. 424, 13-16) Kranz adds Aristotle, *De Caelo* 284 A 24-26. Here he follows Jaeger in inserting (line 25) *διὰ* before *τῆς οἰκείας ποτῆς*. This is a mistake, for the theory as represented by Aristotle is that the heavenly bodies remain because their motion is swifter *than* their tendency to fall (cf. *Metaphysics* 1050 B 22-24 and [Alexander], *Metaph.*, p. 592, 31-32, not cited by Kranz). I, p. 298, 6: for 648 A 5 read 648 A 25. I, p. 299, 23: add Aristotle, *Physics* 194 A 20-21. I, p. 300, 9: add [Philoponus], *De Gen. Animal.*, p. 166, 24-167, 13. I, p. 301, 36: Diels’ *<ἀλλὰ τὰς μὲν ἐκ τῶν ὁμοίων>* cannot be right, for Empedocles obviously held that there is fire and water in *all* eyes; it is better with Stratton to follow Taylor in excising *τὰς δ’*. I, p. 303, 40: The subject of *ποιούσι* is not “Empedocles and Anaxagoras” (so Diels and Kranz) nor yet “those who held views like Empedocles’s” (Taylor *apud* Stratton) but the sensible objects; the plural is used under the influence of the plural in the verse just quoted. Cf. *εἰ . . . ποιῇ τὴν ἡδονήν* (line 41). I, p. 309, 2 (B 2, 3): Scaliger’s *ζωῆς ἀβίου*, accepted by Burnet and Bignone, is not even mentioned. I, p. 311, 15 (note on *ρίζωμα*): for 57 B 15 read 58 B 15. I, p. 312, 10 (note): for 28 B 18, 38 read 28 B 8, 38. I, p. 318, 20 (B 20, 3): *σῶμα* is surely subject of *λέλογχε*, not object as Kranz and Diels take it. I, p. 337, 5: If Diels’ text be kept with Kranz, the fact that Aristotle tries to refute Empedocles’ theory of the influence of heat on sex by pointing out (*De Gen. Animal.* 764 A 33-B 3) that twins of which one is male and the other female have been found *ἐν τῷ αὐτῷ μορίῳ τῆς ὑστέρας* would argue for Burnet’s interpretation: “for in its warmer part the womb brings forth males.” I, p. 338, 11-12: Kranz follows Bignone in reading *εἶδεα* in place of Diels’ *ἰδεα*, but he takes it with *ποιπνύουσα*. This is a late construction, and a better sense is obtained by taking *εἶδεα* as object of *ἐδίηεν*. I, p. 341, 4 ff. (note): for 31 C 1 (I, 374, 17 ff.) read 80 C 1 (II, 269, 8 ff.). I, p. 355, 2-3 (B 112, 7-8): Kranz prints *τοῖσιν † ἄμ’ † ἄν . . . κτλ.* but translates: “wenn ich zu ihnen

komme . . . zu den Männern und Frauen." Bignone, however, was surely right in taking τοῖσιν as referring to ταῖναι . . . στέφουσιν τε θαλείοις. Then ἄμα must govern it (cf. Pindar, *Nem.* IX, 46 and 52-53): "When with these I come to flourishing cities"; and ἀνδράσιν ἡδὲ γυναῖξί depends upon σεβίζομαι: "I am revered by men and women." I, p. 370: in the translation, for 127 read 147. I, p. 372: in the translation, for 154 b read 154 a. ΜΕΝΕΣΤΟΡ: I, p. 376, 17: cf. Plato, *Timaeus* 66 A: . . . τῶν προλελεπτυσμένων ὑπὸ σηπεδόνοσ (in the account of flavors). PHILOLAUS: I, p. 400, 33: . . . ἀφ' ἑαυτῆς (ἀλλ' οὐχ ἡμῶν νομισάντων ἢ ὡς ἔτυχε) θεμέλιον ὑπάρχουσιν . . . : Diels' θεμέλιον is accepted by De Falco also; but ὡς ἔτυχε θεμένων of the majority of MSS is certainly right (cf. Nicomachus, *Introd. Arith.*, p. 50, 22 and p. 109, 16 Hoche). The slighter change of ἀφ' to ἐφ' heals the passage. I, p. 403, 2-7: see Sieveking's new text in the Teubner *Moralia*, vol. II. I, p. 404, 4-9: cf. Empedocles A 56 and see Burnet, *E. G. P.*, pp. 238-239, 298 and n. 1. I, p. 405, 2: for c. 47 read c. 49. I, p. 408, 2: Kranz repeats Diels' statement that γνωσούμενον as "Subjekt der Erkenntnis" is "sachlich unmöglich"; but cf. Plato, *Cratylus* 440 B: εἰ δ' αὖ μεταπίπτει, αἰὲν οὐκ ἂν εἴη γνώσις καὶ . . . οὔτε τὸ γνωσόμενον οὔτε τὸ γνωσθησόμενον ἂν εἴη. ARCHYTAS: I, p. 426, 5: for Δ'ΑΑ read ΔΑΑ. I, p. 429, 29-30: cf. Aristotle, *De Sensu* 448 A 19-22; Xenocrates, frag. 9 (Heinze); Simplicius, *De Caelo*, p. 661, 11-12. I, p. 430, 8-12: cf. also Theo Smyrn., p. 50, 4-21; Aristotle, *De Gen. Animal.* 786 B 25-31. OCELLUS: I, p. 440, 28-29: for πάνι της read πάντη and for περ- read περί. I, p. 441, 5-8: cf. I, p. 455, 18-20. SIMUS ET AL.: I, p. 445, 4: for αἱ read οἱ. I, p. 445, 7: for προφιλοτεχνηθείσας read προσφιλοτεχνηθείσας. PYTHAGOREANS: I, p. 450, 26: for τὰ- read τὰς. I, p. 457, 18-19: τοῦ μὲν οὖν περιττοῦ . . . γενέσεως does not belong here; it refers not to Pythagoreans but to Platonists (cf. *Metaphysics* 1091 A 20: . . . ἐκ δὲ τῆς νῦν ἀφαίνει μεθόδου). I, p. 471, 33: for Διοι read Διο-. I, p. 471, 35: for κας read καὶ. ANAXAGORAS: II, p. 10, 5: cf. 68 A 15. II, p. 18, 29 (note): cf. *Class. Phil.*, XVII (1922), p. 350 where Shorey remarks that Plato, *Protagoras* 329 D-E is presumptive evidence against the use of the term ὁμοιομερῇ by Anaxagoras. II, p. 19, 6: add Aristotle, *Physics* 265 B 22: καὶ τὸν νοῦν δὲ φησιν Ἀναξαγόρας διακρίνειν τὸν κινήσαντα πρῶτον. II, p. 19, 7-28: The important passage, Plato, *Laws* 967 B 4 ff., should have been printed here. II, p. 21, 2: Kranz retains Diels' translation "man hat Grund von H. anzunehmen"; but αἰτίαν δ' ἔχει κτλ. can mean only: "but H. is reputed to have expressed them before." II, p. 21, 8-10: cf. Aristotle, *Physics* 251 A 23-28. II, p. 29, 22: καὶ εἰ τις ἄλλος: cf. A 58 (II, p. 21, 2). II, p. 44, 3-5: cf. 24 A 16 (I, p. 214, 7-12). DIOGENES: II, p. 57, 21: cf. also Hippocrates, *περὶ σαρκῶν* § 6 (VIII, p. 592 L.). II, p. 67, 12-13: τὸ μὲν . . .

φύσα καλέεται: cf. Plato, *Republic* 405 D. II, p. 68: in notes for 31 read 36. CRATYLUS: II, pp. 69-70: To the passages from Plato's dialogue should certainly be added 440 D-E: Κρ. εὖ μέντοι ἴσθι, ὦ Σώκρατες, ὅτι οὐδὲ νυνὶ ἀσκέπτως ἔχω ἀλλὰ μοι σκοπούμεν καὶ πράγματα ἔχοντι πολὺ μᾶλλον ἐκείνως φαίνεται ἔχειν ὡς Ἡράκλειτος λέγει. LEUCIPPUS: II, p. 71, 17: < . . . τὴν δὲ λόξωσιν . . . γενέσθαι >, Diels' conjecture, is retained with his note of defense against H. Gomperz; but cf. Heath, *Aristarchus of Samos*, p. 122, n. 3. II, p. 72, 22 and 30: on ῥυσμός — σχῆμα cf. Aristotle's own use of ἀρρύθμιστος (*Metaphysics* 1014 B 26-28, *Physics* 193 A 11). II, p. 73, 4-8: Here should be quoted Aristotle, *Physics* 187 A 1-3, which is printed in part under Zeno (I, p. 252, 35-37) and which certainly refers to the Atomists (cf. Cherniss, *Aristotle's Criticism of Presocratic Philosophy*, p. 75, n. 303 and Ross, *Aristotle's Physics*, pp. 480-481). II, p. 73, 11-12: cf. 68 A 42. II, p. 79, 4-6: cf. also Aristotle, *De Sensu* 439 B 19-22 and 440 A 20-23. II, p. 80, 4: τοὺς ἀστέρας ζῶα εἶναι: so Alcmaeon A 12 (I, p. 213, 17-27). DEMOCRITUS: II, p. 81, 18 — II, p. 134, 9: cf. Plato, *Cratylus* 409 A-B (cf. Covotti, *I Presocratici*, p. 288). II, p. 82, 34-35: cf. *Voll. Herc.*, coll. alt. III, 197-199, frag. 5 (Crönert, *Kolot. und Mened.*, p. 128), cited by Alfieri, *Gli Atomisti*, p. 48, n. 29. II, p. 87, 38 ff.: cf. Lucian, *Demonax* § 25. II, p. 95, 1-3: With line 2 cf. *De Generatione* 320 B 23: σῶμα γὰρ κοινὸν οὐδέν and *Metaphysics* 1069 A 28-30: οἱ δὲ πάλαι τὰ καθ' ἕκαστον (scil. οὐσίας τιθέασιν) ἀλλ' οὐ τὸ κοινόν, σῶμα. So the punctuation of line 2 here should be . . . αὐτῷ (not αὐτῶν, *pace* Diels) τὸ κοινόν, σῶμα, πάντων ἐστὶν ἀρχή. The passage is an attempt to reduce the doctrines of Anaxagoras and Democritus to identity and to represent both as essentially the same as that of the "material monists." II, p. 95, 4-7: cf. Aristotle, *Metaphysics* 1001 A 17-19; for the οἱ πλείω τὰ στοιχεῖα τιθέμενοι in that passage as inclusive of Democritus cf. *Physics* 203 A 19 ff. (59 A 45) to which reference should be made in 68 A 41 (p. 95, 1-3). II, p. 99, 5 (*Metaphysics* 1069 B 22): The correct punctuation given by Ross abolishes this impossible assertion (impossible not merely as a "citation" but even as an "interpretation" of Aristotle's) and leaves as a reference to Democritus only ὡς Δημόκριτός φησιν parallel to Ἐμπεδοκλέους τὸ μῖγμα καὶ Ἀναξίμανδρου. II, p. 99, 6-7: The quotation should not stop with λέγουσιν, for the sentence continues τῶν δ' ἄλλων οὐδεμίαν ὑπάρχειν τοῖς πρώτοις ἀλλὰ τοῖς ἐκ τούτων οἶονται· αὐξάνεσθαι γὰρ καὶ φθίνειν καὶ ἀλλοιοῦσθαι συγκρινόμενων καὶ διακρινόμενων τῶν ἀτόμων σωμάτων φασίν. II, p. 99, 19-20: This is an example of the danger of printing part of a sentence, for out of its context it seems to say that each atom has weight directly proportionate to its magnitude (cf. e.g. Alfieri, *Gli Atomisti*, p. 101, n. 236). In context it is an argument to show that Democritus, having asserted that each atom has

relative weight when compared with any other although none has weight absolutely, must *a fortiori* admit, since he ascribes absolute heat to some atoms, that *all* have heat relatively to one another (cf. *Aristotle's Criticism of Presocratic Philosophy*, pp. 97-99 and notes 412, 413, 414). II, p. 107, 8: for 365 A 1 read 365 B 1 (same error in Index, III, p. 582). II, p. 109, 10-11: cf. *Metaphysics* 1009 B 28-31 where this interpretation of Homer is introduced by φασί. II, p. 119, 31-32: Theophrastus is copying the argument of Aristotle, *De Generatione* 325 B 34-326 A 14 (cf. note on p. 99, 19-20 *supra*); Diels' supposition that τῶν ἰσχυρῶν (line 32) refers to "Leute wie Parmenides" is therefore superfluous. Similarly p. 120, 2-4 derives from *De Caelo* 275 B 29-276 A 6. II, p. 121, 3-4: cf. Theophrastus, *De Igne* § 31: . . . ἡ τῶν χλωρῶν ἐρυθροτέρα φλόξ ἢ τῶν ξηρῶν (cited by Stratton). II, p. 122, 10: Kranz keeps ζῶν, Usener's change adopted by Diels; but the reference to Aristotle, *De Gen. Animal.* 785 A 21 does not explain the strange statement resulting from this change. II, p. 123, 8: At this point Alfieri (*Gli Atomisti*, p. 161) adds two passages from Diogenes of Oenoanda (frag. 5, col. 2 [p. 10, William], frag. 6, col. 2 [p. 11, William]), which have apparently escaped Kranz's notice. II, p. 136, 25: for c. 27, 5 read I, 7, 5. II, p. 136, 41-44: φύονται . . . τινες ὑμέτες εὐκότες πομφόλυξιν αἱ . . . τὰ ζῶα ἀπέτεκον. Cf. Aristotle, *De Gen. Animal.* 762 A 22-24: ἐμπεριλαμβάνεται (scil. θερμότης ψυχική) δὲ καὶ γίγνεται θερμαινομένων τῶν σωματικῶν ὑγρῶν οἷον ἀφρώδης πομφόλυξ. II, p. 136, 46-137, 4: cf. Aristotle, *De Gen. Animal.* 762 A 18-20. As for the intervening lines, p. 136, 44-46, the notion here contained that male and female differ by being warmer and colder respectively is in contradiction to what Aristotle says of Democritus' theory (*De Gen. Animal.* 764 A 6-11) and nothing like it occurs in the Diodorus passage; it is, however, in perfect accord with Aristotle's own theory, particularly in linking the greater heat of the male with a higher degree of concoction (cf. *De Gen. Animal.* 765 B 8-766 A 22). II, p. 137, 12-15: Similarly this "paradoxical" classification of plants of which it is here said (p. 136, 25-29) that it "erinnert an ähnlichen Metaphern des Empedokles dessen Theorie Demokrit benutzt zu haben scheint" is the common Aristotelian comparison (cf. especially *De Incessu Animal.* 706 B 3-6, 705 B 6-8; *Parva Nat.* 467 B 2). II, p. 138, 25: The reference here to A 135 § 63 ff., carried over from edition 4, is wrong (as Alfieri has observed), for "die ἰδέαι sich auf die Formen der Atomen beziehen," whereas there the *composite* bodies are in question (n. b. p. 117, 31: τὸ σχῆμα μεταπίπτει and cf. B 139, 139 a). II, p. 141 in footnotes: for 23 read 24, for 24 read 25. II, p. 157, 12 (footnote): after "vgl. τρόποι" add: B 61 (II, p. 158, 3) and cf. δύστροποι (II, p. 163, 2), which does not mean "unverträglich." II, p. 159, 11-12: cf.

Plato, *Republic* 403 A 7-8. II, p. 181, 1-7: On fraga. B 178 and 179 see Shorey, *Class. Phil.*, XIII (1918), pp. 813 f. and cf. Aristotle, *Politics* 1339 A 26-31; II, p. 181, 11 ff.: cf. Plato, *Republic* 548 B-C and *Laws* 722 B ff. II, p. 191, 3 (footnote): For the source of Plutarch, *Ages.* 33 quoted as parallel to B 228 cf. Plato, *Republic* 404 A-B. II, p. 201, 3-4: cf. Aristotle, *Politics* 1255 B 11-12. METRODORUS: II, p. 233, 15-17: cf. also II, p. 79, 19-21. ALTERE SOPHISTIK: II, p. 253, 12: Add Aristotle, *Metaphysics* 1026 B 14 ff.: διὰ Πλάτων τρόπον τινὰ οὕτως κακῶς τὴν σοφιστικὴν περὶ τὸ μὴ ὅν ἔταξεν (cf. *Sophist* 254 A). εἰσὶ γὰρ οἱ τῶν σοφιστῶν λόγοι περὶ τὸ συμβεβηκὸς ὡς εἰπεῖν μάλιστα πάντων, πότερον ἕτερον ἢ ταῦτόν μουσικόν καὶ γραμματικόν, καὶ μουσικὸς Κορίσκος καὶ Κορίσκος, καὶ εἰ πᾶν ὃ ἂν ᾗ, μὴ ἀεὶ δέ, γέγονεν, ὥστ' εἰ μουσικὸς ὢν γραμματικὸς γέγονε, καὶ γραμματικὸς ὢν μουσικὸς, καὶ ὅσοι δὴ ἄλλοι τοιοῦτοι τῶν λόγων εἰσὶν. PROTAGORAS: II, p. 258, 21: cf. Aristotle, *Metaphysics* 1011 A 17-20. II, p. 259, 5-6: cf. Plato, *Theaetetus* 156 E-157 A and 154 B. GORGIAS: II, p. 283, 6: With *De M. X. G.* 980 B 9-17 cf. Aristotle, *De Sensu* 446 B 17-26. II, p. 305, 6-7: This refers not to any work of Gorgias but to *Meno* 71 D-73 C, part of which is printed as B 19 (II, p. 305, 8 ff.). ANTIPHON: II, p. 343, 1: with ἐπαλλάξας cf. II, p. 93, 34: αἰτιάται τὰς ἐπαλλαγὰς. II, p. 356, 31: cf. also Platonic *Definitions* 411 D 8 f. and *Alcibiades* I, 126 C ff. CRITIAS: II, p. 384, 11: cf. Plato, *Cratylus* 405 C-D. ΔΙΣΟΙ ΛΟΓΟΙ: II, p. 413, 19-21: cf. Plato, *Cratylus* 432 A-B; Aristotle, *Metaphysics* 1043 B 36-38; Posidonius *apud* Stobaens, *Ecl.* I, 20, 7 (I, p. 178, 10-13 Wachsmuth). ZUSÄTZE: II, p. 422, 37-38: for III, 19 W read III, 48 W. II, p. 422, 45: for 84 read 36. II, p. 424, 13: for Suppl. 31 read Suppl. 21. II, p. 425, 30 ff.: Cf. Powell, *New Chapters in the History of Greek Literature*, 3rd series, 1938, pp. 148-151. III, p. 658, 41: for 59 B 2 read 59 B 21.

ALISTER CAMERON. *The Pythagorean Background of the Theory of Recollection.* (Columbia Univ. Dissertation.) Menasha, Wisconsin, George Banta, 1938. Pp. 101.

It is Cameron's thesis that Plato in his account of anamnesis acknowledges fifth century Pythagoreanism as his inspiration and the legendary prophet of number as his spiritual and intellectual forebear. The demonstration of this thesis consists of two parts. First Cameron tries to show that according to fifth century Pythagoreanism the exercise of memory throughout the transmigrations is the means whereby the soul regains the divine truth of number, lost to it upon its incarnation, and thus wins release from the cycle of rebirth. Then he contends that Plato regularly states the theory of recollection as a deduction from the idea of transmigration and consistently approaches recollection and transmigration from a mathematical point of view; this combination of elements, he maintains, is characteristically Pythagorean.

It seems to me that neither part of the case has been established. Grant that fifth century Pythagoreanism held both the doctrines of a fixed cycle of rebirth and of liberation from the cycle;¹ it remains to show that this liberation was connected with the soul's recovery of a pre-experiential knowledge of number. The fragment of Empedocles (129) does not support such a notion; Pythagoras, if he be the subject, is not said to have envisaged number, or a truth outside of experience, or even "all things that are," that is, the physical world" (Cameron, p. 21) but simply everything that happened in ten and twenty generations of men. So in Heraclides' story of Hermes and Pythagoras the latter remembers his experience in all his incar-

¹ Of the passages earlier than Heraclides cited by Cameron not one connects Pythagoras or Pythagoreans *by name* with the doctrine of transmigration, not even Aristotle, *De Anima* 407 B 21 ff. (on which cf. my *Aristotle's Criticism of Presocratic Philosophy*, p. 325, n. 130); this may be accidental in one way or another in the case of Ion (frag. 4), Xenophanes (frag. 7), Empedocles (frag. 129), and Herodotus (II, 123). As regards the last of these, however, the connection of transmigration with Pythagoras cannot be proved, as Cameron and others suppose, from the story of Salmoxis (IV, 95), for the Getae believe that they "go to Salmoxis" (IV, 94), who taught that he and his companions "would go to that place where *dei nepieóvtes éxovσι τὰ πάντα ἀγαθὰ*" and who persuaded them by reappearing in his own form (IV, 95); neither here nor in Plato's *Charmides* (156 D-157 C) is there any doctrine of transmigration.

Of a Pythagorean doctrine of liberation there is still less direct evidence. Cameron says that "we must believe" that such a contradiction belonged to fifth century Pythagoreanism because it belonged to Empedocles, Pindar, and Plato.

nations; he also remembers what happened to his soul in Hades, but there is nothing here about number or the "gradual recovery of the omniscience the divine soul once had before its human experience began" or a release from the cycle in consequence of such a recovery. Neither does the story of Hippasus show that Pythagoras' wisdom of numbers was the recovery in the course of many lives of what his soul had lost on first being bound to the body. Cameron argues (pp. 24-25) that Hippasus must have split with orthodox Pythagoreans on a vital issue, that this must have been the doctrine of number, and that, since the travesty which he published was called *μυστικός λόγος*, the doctrine was a mystic *λόγος* of number, the Pythagorean mystery religion. Even if the premises here were certain,² the legitimate conclusion would still be far from that which Cameron draws from them. The same must be said of the material taken from Heraclides: the "three lives" story affords even less evidence than that of Hermes and Pythagoras for a doctrine of pre-experiential knowledge which, recovered by the exercise of memory, frees the soul from the wheel of birth.³ Of number, recollection, and transmigration there is nothing in Alcmaeon; according to Cameron that is because he was not a *bona fide* initiate, in spite of which, however, he reflects the Pythagorean concept of *θεωρία* and his reference to astral motion in explanation of the soul's immortality indicates how the Pythagoreans found in astronomy a pattern of the wheel of birth. Cameron fails to notice Alcmaeon's distinction between man and the other animals (frag. 1a); that looks very much like a direct denial of metempsychosis in the Pythagorean sense, in which case his explanation of immortality could not be a Pythagorean "pattern of transmigration."⁴ Whatever his con-

² The evidence concerning Hippasus is very weak. Heraclides Lembus ascribed the *μυστικός λόγος* to him (D. L., VIII, 7), but Demetrius denied that he left any writing (D. L., VIII, 84). Aristotle does not call him a Pythagorean or imply that "he turned from number to the Heraclitean principle," and neither apparently did Theophrastus.

³ Cameron makes much (pp. 36 and 80) of a passage of Clement (*Strom.*, II, xxi, 130) according to which Heraclides said that Pythagoras taught *τὴν ἐπιστήμην τῆς τελειότητος τῶν ἀριθμῶν τῆς ψυχῆς εὐδαιμονίαν εἶναι*. *ἀριθμῶν*, however, is an emendation of *ἀρετῶν*, made on the basis of Theodoret's *τὴν τελειωτάτην ἀριθμῶν ἐπιστήμην ἔσχατον ὑπελάμβανεν ἀγαθόν*, which indicates that, if *ἀριθμῶν* be read, *τῆς ψυχῆς* does not depend upon it, as Cameron supposes, but that the meaning would be: "the soul's happiness is the knowledge of the perfection of numbers."

Zeller (*Phil. Griech.*, I^o, p. 569, n. 1) expressly rejected the passage as valueless for early Pythagoreanism. In any case, Cameron's defense of Heraclides as a witness for fifth century Pythagoreanism overlooks the fact that sometimes at least Heraclides certainly put into the mouth of Pythagoras what was Platonic in origin (e. g. frag. 36, Voss; it is of no moment whether the fragment comes directly or indirectly from Heraclides).

⁴ Cf. L. A. Stella, "Importanza di Alcmeone," *R. Accademia Nazionale dei Lincei*, CCCXXXVI (1939), S. VI, Vol. VIII, pp. 255 and 275 ff.

ception of the soul, however, his first fragment is certainly not to be interpreted in Cameron's fashion. In the first place, to say that gods have clear knowledge whereas for men there is *τεκμαίρεσθαι* is surely not an attempt "to annihilate the gap between human and divine"; in the second place, *περὶ τῶν ἀφανέων τεκμαίρεσθαι* is not a principle which can be shown to be specifically Pythagorean.*

In order to eliminate any break in fifth century Pythagorean doctrine Cameron contends that, contrary to the usual opinion, the *Phaedo* shows Philolaus to have thought the *ψυχὴ-ἁρμονία* theory an argument in favor of immortality, and in the Philolaic fragments he tries to find support for a conception of *ἁρμονία* which would be compatible with immortality, i. e. "a Harmonia which preceded the synthesized elements." Now it is true that Philolaus, if he opposed suicide (*Phaedo* 61 D-E), most probably believed in immortality and also that there is no good reason for taking the theory of Simmias (*Phaedo* 85 E ff.) to be Pythagorean; but Cameron is mistaken in thinking that *Phaedo* 88 D proves Echecrates—and so the Philolaic Pythagoreans—to have held that the theory of the soul as *ἁρμονία* is an assurance of its immortality. When Echecrates says *καὶ πάντῃ δέομαι πάλιν ὥσπερ ἐξ ἀρχῆς ἄλλου τινὸς λόγου ὃς με πείσει κτλ.*, he does not mean an argument other than that the soul is *ἁρμονία* *τις* but one other than that of Socrates which had previously convinced him but had then been shaken by the objections of Simmias and Cebes (cf. 88 D 1-3). That not until Simmias had spoken was Echecrates reminded of his own predilection for the notion *τὸ ἁρμονίαν τινὰ ἡμῶν εἶναι τὴν ψυχὴν* and the vague *τινά* itself would both indicate that he had never seriously connected this opinion with the belief in immortality.*

The evidence fails to show that the Pythagoreans connected the belief in transmigration with the doctrine that "all things are number" or that they had any notion at all of pre-experiential knowledge; in the case of Plato it shows positively that Cameron's thesis is mistaken. The first proof of the *Phaedo*

* Cf. the saying ascribed to Solon: *τὰ ἀφανῆ τοῖς φανεροῖς τεκμαίρου* (Diels-Kranz, I, p. 63, 22); Herodotus, I, 57; II, 33, 2; Hippocrates, *περὶ ἀρχαίης ἱητρικῆς*, chap. 22. Capelle (*Die Vorsokratiker*, p. 112, n. 1) calls the fragment a recognition of the limitation of all human knowledge; and Miss Stella interprets it as a polemical admonition to the Pythagorean friends of Alcmaeon (*loc. cit.*, pp. 239-243).

* The Philolaic fragments, as Cameron admits, say nothing about transmigration; but frag. 10, moreover, to which he does not refer, says expressly that *ἁρμονία* is a synthesis of opposites. Since Cameron does not support with arguments his belief that these fragments "or their source are older than Plato or Aristotle," I shall not go into the question of their authenticity except to say that, since he seems to admit that they contain "definite anachronisms," it would appear that only those elements could be confidently accepted as early which could be proved by independent evidence to be so.

(70 C ff.), Cameron argues, must be Pythagorean because it makes the real nature of generation depend upon the principle of the mean. The analogy of waking and sleeping which Plato here uses for the cycle of life and death would remind any reader of Heraclitus (frags. 88 and 62; cf. also Melissus, frag. 8 [I, p. 274, 3-7]); and Cameron's contention that Heraclitus cannot be the source because he was "not particularly interested in the mean" has no weight, for the geometrical mean has been shown to have been a basic pattern of Heraclitus' thought (cf. H. Fränkel, *A. J. P.*, LIX [1938], pp. 309-337). At 103 A it is an interlocutor whose anonymity is particularly stressed who refers to the basis of the first proof as inconsistent with Socrates' later argument. Moreover, Socrates does not "abandon this earlier proof"; he denies the inconsistency, saying that the earlier doctrine is true of τὰ ἐναντία πράγματα but not of αὐτὰ τὰ ἐναντία (103 B)⁷ and thus making the same distinction between the sensible and intelligible which at the end of the *Cratylus* (439 D) introduces the argument against the doctrine of Heraclitus. Whether or not Plato got from Heraclitus the notion of an equilibrium in change, the formulation of the argument is his own. Against Cameron's attempt to reduce it to "the principle of the mean" and so to make it correspond with the ἀρμονία of the Philolaic fragments it is enough to observe that the whole point of the argument is that there must be not one but *two* processes between each pair of contraries; the analogy of the harmonic mean could never suggest this argument, which is not mathematical anyway,—even in expression.⁸

Meno 81 A-85 D is the other passage on which the second part of Cameron's demonstration chiefly rests. Here, he says, "mathematics is shown to be the prenatal divine knowledge of the soul

⁷ It is worth observing that Cebes is made expressly to deny that any such confusion had troubled him (103 C). This itself should have made Cameron hesitate to jump to the conclusion that, since the Pythagorean numbers were πράγματα, Plato must have these numbers in mind when he refers to πράγματα in 103 B. The examples given in 70 D-71 A which he now calls πράγματα were fair and foul, greater and less, stronger and weaker, swifter and slower, better and worse, just and unjust; and there is no suggestion that he is thinking of number at all.

⁸ Plato does not speak of a "mean" or a "proportion" but of "processes between contraries." Cameron does not consider Aristotle's references to this argument (n. b. especially *De Generatione* 338 B 8-19 and 318 A 13-26; cf. *Metaphysics* 994 A 25-B 6, [*De MXG*] 975 A 21-32), in none of which is there any indication of a mathematical analogy or a connection with Pythagoreanism. A mathematical "analogy" of circular motion—and a Pythagorean one at that—does exist; it is ascribed to Archytas ([Aristotle], *Problemata* 915 A 25-32), but it is not applied to generation and destruction and, what is most significant, it does not reckon with a "mean," for it makes the formula of the motion that returns on itself ἡ τοῦ ἴσου ἀναλογία. Cameron's treatment of ἀρμονία in the Philolaic fragments is quite confused; his notion (p. 65, n. 32) that Ueberweg-Praechter considers the argument "on opposites" to be Pythagorean arises from misconstruction of the German.

through which man can win back all knowledge"; that in "bringing a geometrical proof to the theory of recollected divine knowledge" Plato follows a recognized Pythagorean practice; and that, since the single thing by recollection of which all other things can be sought out is a mathematical proof, the whole truth of kindred nature is to be understood as the mathematical scheme of all life. Now *Meno* 81 C (περὶ ἀρετῆς καὶ περὶ ἄλλων) shows that Plato does not give mathematical objects any such special place in the doctrine of reminiscence; and *Phaedrus* 249 E-250 D alone would refute Cameron's frequently repeated assertion that "recollection and transmigration are consistently approached from a mathematical point of view."⁹ Luckily, however, Plato himself indicates his reason for choosing a "geometrical proof" in the *Meno*; he needed as an example something about which Meno himself would be satisfied that the slave could not have had previous instruction (85 E). What is the clearest proof of a theory (cf. *Phaedo* 73 A7-B2 [n. b. ἐνταῦθα σαφέστατα κατηγορεῖ]) is not for that reason the most important content of the theory thus demonstrated.¹⁰ There is no reason, then, to suppose that "the kinship of nature" in the *Meno* is meant to be a "number-pattern."¹¹ At any rate in the *Phaedo* the

⁹ In his Conclusion Cameron adduces *Timaeus* 41 A ff. and the myth of Er to show that number consistently reappears in "even the most mystical of Plato's accounts of recollection." The myth of Er is Pythagorean, apparently because "there is only one way in which the soul can be 'saved by wisdom,' . . . the way of recollection by pursuit of number." This, however, is not what Plato says; it is a construction based upon a statement of Olympiodorus on the *Phaedo*. There is no "pursuit of number" in the myth of Er, and the studies which will save at the time of the great test are not mathematics (cf. 618 B-619 A, 619 C-E). As for the *Timaeus*, Cameron's mistranslation of συνεπισπόμενος in 42 C (which he seems to mistake for a form of ἐπομαι) vitiates his interpretation of the passage; it means that there is no release from transmigration until the rational part of the soul gains mastery over the passions and the body. The "nature of the universe" shown the souls before birth is the world of ideas; there is no more indication here than in the passage of similar purport in the *Phaedrus* (cf. 247 D ff.) that this is "mathematical."

¹⁰ Mathematics was also important in Plato's eyes as a propaedeutic. This, as *Republic* 524 D-526 C shows, is the meaning of 522 C where the reference to number makes Cameron think that Plato in 521 C is writing "with his eye on the Pythagorean idea that immortality (!) is won by a knowledge of number through a transmigratory life." In 533 D dialectic uses mathematics to draw up the eye of the soul from the barbaric slime; since Plato there is certainly using Heraclitean language and Orphic "mythology" (cf. Fränkel, *loc. cit.*, pp. 311-312 and n. 32), it is clearly wrong to see in the former praise of mathematical studies a necessary or even probable reference to Pythagoreanism.

¹¹ *Phaedo* 70 D does not state the kinship of nature, as Cameron says that it does, stopping his quotation short of καὶ ἐν ἀλλήλοισιν ὅσα πᾶσι ἔχει γένεσιν in which Socrates includes τὸ καλόν, τὸ δίκαιον, etc. It states the universality of the law that "anything that has an opposite can come to be only from that opposite." Similarly in 75 C after τὸ ἴσον

soul strives for no such "number-pattern" but for the ideas; these, however, are according to Cameron just the Pythagorean numbers "taken out of nature" to provide for the "element of falling short" which was so apparent to Plato in the world of nature. Such an account, it seems to me, makes nonsense of the theory of ideas as a considered answer to the fundamental problem of knowledge, the problem which makes the most serious trouble for Aristotle when he denies the "separation of the form." Moreover, it is self-contradictory, for the "falling short" of phenomena could not occur to anyone who had not already conceived the necessity for qualitative absolutes. That "embodied numbers" fall short of "numbers" is a notion which can arise only after the real is seen to be qualitatively absolute. Number, as the *Cratylus* says (432 A-C) is not the best but the worst, i. e. the most difficult, example by which to explain the likeness which falls short of the original. At first sight it would seem to be an exception to that relationship, which can be seen to apply to number as it does to other things only after the real numbers are recognized to be each "incomparable units." Had Plato started by "seeking out number in nature" he would never have seen the necessity of "separating the ideas."¹² Neither does Plato state the theory of recollection as a "deduction from the idea of transmigration." On the contrary, the pre-existence of the soul is deduced as a necessary consequence of anamnesis (cf. *Phaedo* 72 E and 92 C), while anamnesis is presented as a necessary deduction from the nature of knowledge and "learning" (cf. *Phaedo* 73 B-77 A; *Meno* 85 D-86 B). Plato's theory of recollection could not be deduced from transmigration, and any "recollection" following merely from this would not answer Meno's question but would only postpone the answer to it. Socrates' remark at *Meno* 86 B shows how in-

is used to prove that knowledge is prior to corporeal existence, the proof is said to concern τὸ ἴσον no more than ἀπάρτα οἷς ἐπισφραγίζομεθα τὸ "αὐτὸ δ' ἴστι."

¹² The attempt to bring together *Phaedo* 74 A (. . . συμβαίνει τὴν ἀνάμνησιν εἶναι μὲν ἀφ' ὁμοίων, εἶναι δὲ καὶ ἀπὸ ἀνομοίων) with the sixth Philolaic fragment (τὰ μὲν ὦν ὁμοία καὶ ὁμόφυλα ἀρμονίας οὐδὲν ἐπεδέχοντο, τὰ δὲ ἀνόμοια μηδὲ ὁμόφυλα μηδὲ ἰσοταγῇ ἀνάγκα τῇ τοιαύτῃ ἀρμονίᾳ συγκεκλεισθαι) is a failure. I cannot see that any sense is made for either passage by Cameron's statement: "the Harmonia, like Recollection in the *Phaedo*, is thus recognized by the likenesses in things." The *Phaedo* passage serves as the basis for Socrates' proof that since sensible objects remind us of what they are not, i. e. of those absolutes toward which they tend but of which they fall short, we must have had knowledge of those absolutes before our birth (74 D-75 C). The Philolaic passage has no hint of recollection, no indication that the harmony by which the unlike principles of the cosmos are bound together has any rôle in a theory of knowledge. (It is quite unjustifiable to use [Iamblichus], *Theol. Arith.*, p. 79, 5-8, De Falco, in this connection, for the ultimate source of the notion there expressed is Speusippus' own brand of Platonism [frag. 4, 13-17, p. 54, Lang, = *Theol. Arith.*, p. 83, 1-6].)

complete and tentative Plato thinks the relationship between the "proof" and the "myth" which introduces it. What is used as an introduction to an exposition obviously need not be that from which Plato's theory is "derived" either historically or logically.¹²

¹² The argument from opposites in the *Phaedo* is not "derived from" the *ελασιος λόγος* but is presented as a proof of what that *λόγος* implies and itself introduces the proof from reminiscence because remembering and forgetting are also two processes intermediate between two opposites (cf. Robin, *Phédon*² [Budé edition], pp. xxvii f. and n. b. *Theaetetus* 188 A).

PYTHAGOREANS AND ELEATICS. An Account of the Interaction between the Two Opposed Schools during the Fifth and Early Fourth Centuries B.C. By J. E. RAVEN, Cambridge, England, Cambridge University Press; New York, Macmillan Co., 1948. Pp. viii, 196. \$2.75.

The author of this dissertation calls it a commentary upon the interpretation of Pythagoreanism proposed by Cornford (*Class. Quart.*, XVI [1922] and XVII [1923], somewhat modified in his *Plato and Parmenides* [1939]) and an alternative reconstruction which he was led to attempt by the desire to escape the difficulties implicit in Cornford's interpretation of the relevant evidence. This evidence, he contends, does not support Cornford's notion that the original Pythagoreans made the monad prior to the two opposite principles of Odd or Limit and Even or Unlimited and that the so-called "number-atomism," the assertion of the ultimate reality of an unlimited number of units, was developed by the Pythagoreans in reply to the attack which Parmenides made upon their earlier doctrine. Raven asserts on the contrary that there was in the Pythagoreanism of the early fifth century a fundamental dualism of two equally ultimate principles, that of Limit-Unity-Rest-Goodness on the one hand and that of Unlimited-Plurality-Motion-Evil on the other, and that the "inhalation" of the latter by the former was held to produce a plurality of sensible things which, being sums of spatially extended units separated by a void, are equal to numbers; that Parmenides, a dissident Pythagorean, attacked this doctrine with the argument that Unity as an ultimate principle makes the existence of anything but Unity impossible; that, after the Pythagoreans had counterattacked with the argument that the One of Parmenides, being limited and extended, could be neither unique nor without parts, and Zeno and Melissus had replied to them (the first by turning their own arguments against their own extended units, the second by making the Eleatic One infinite and incorporeal), the younger Pythagoreans revised their system by making their unity no longer equivalent to the ultimate principle of Limit but the first product of the imposition of that principle upon the Unlimited and by asserting that physical bodies and geometrical magnitudes, though infinitely divisible, are still bounded by the imposition of Limit upon the Un-

Philosophical Review 59 (1950), pp. 375-377.

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limited of extension and so can be equated with the number of points required to bound their proper surfaces.

Raven was justified in feeling that the evidence does not support Cornford's interpretation, which incidentally has never been so widely accepted outside of Cambridge as he appears to believe; but it does not support the original features of Raven's reconstruction either, and least of all does it support the not unimportant elements common to the interpretation of both. Both, for example, think that the poem of Parmenides can be used as a mirror in which to see the features of early Pythagoreanism, although they see quite different and incompatible reflections in it. Raven protests that it is not cogent to contend that because there is no trace in Parmenides of the doctrine that Zeno attacked it could not have existed when Parmenides wrote, for "Parmenides was concerned only with the basis, not with the superstructure, of Pythagoreanism." Yet according to Aristotle, whose testimony Raven seeks everywhere to vindicate, the identification of things with numbers was the very essence of Pythagoreanism; if then this doctrine existed when Parmenides wrote, Parmenides could not have been primarily concerned with Pythagoreanism at all. Moreover, Raven's positive interpretation of the first part of the poem is mistaken, for, not to mention the many details which are unacceptable, it is not from Unity that Parmenides begins but from Being; and it is from the necessary characteristics of Being that he deduces the impossibility of change and multiplicity, which alone is enough to show that he was not concerned to annihilate one of the Pythagorean contraries in favor of the other.

Raven's treatment of Aristotle's testimony is no more satisfactory. His notion that the early Pythagoreans invoked numbers a second time in order to account for different characteristics of individual things by the varying proportion of the ultimate contraries in each rests entirely upon a misinterpretation of *Metaphysics* 1092 B 9-23 (pp. 58-63); the words in lines 17-18 ($\delta \gamma \alpha \rho \lambda \acute{o} \gamma \omicron \varsigma \eta \nu \acute{o} \upsilon \sigma \iota \alpha, \delta \delta' \acute{\alpha} \rho \iota \theta \mu \acute{o} \varsigma \epsilon \lambda \eta$) which he paraphrases "for to the Pythagoreans the numerical formula determines the quality, while numbers are also the material" have nothing to do with Pythagorean theory but simply support Aristotle's own statement in the preceding sentence ("it is clear that numbers cannot be the essences or causes of form") which is his rejection of his own tentative suggestion that numbers might be causes of being in the way that the octave is a ratio of numbers, and the sentence means: in such a case (i.e., $\sigma \upsilon \mu \varphi \omega \nu \iota \alpha = \lambda \acute{o} \gamma \omicron \varsigma \acute{\alpha} \rho \iota \theta \mu \acute{o} \nu$) the essence is the $\lambda \acute{o} \gamma \omicron \varsigma$ and the number is $\epsilon \lambda \eta$ of the $\lambda \acute{o} \gamma \omicron \varsigma$. This is common Aristotelian analysis and does not at all contradict the general conclusion (lines 23-25) that number cannot be efficient, material, formal, or final cause, i.e., cannot be cause in any sense.

To follow passage by passage the evidence that Raven adduces and the interpretation which he puts upon it is impossible in the brief space allowed for this review; but readers of his book should at least be warned that almost every interpretation on which his reconstruction is based is open to serious question. Special attention should be called to the fact that some Aristotelian passages of which he makes much were not even meant by Aristotle to refer to Pythagoreans (e.g., *De Caelo* 293 A 30-33 [pp. 153-154], *De Anima* 409 A 4 [p. 106], *Metaphysics* 1090 B 5-13 [p. 109]); that many others are dialectical constructions of Aristotle himself; that much of the material from Theon of Smyrna, Nicomachus, and Sextus Empiricus which he employs is demonstrably Xenocratean or Speusippean and cannot possibly be pre-Platonic; and that he makes use (pp. 159 ff.) of the passage from Alexander Polyhistor *apud* Diogenes Laertius, VIII, 24 ff., without consideration and apparently without knowledge of Festugière's demonstration (R.E.G., LVIII [1945], 1-65) that this material cannot be used as a source of information for pre-Platonic Pythagoreanism.

OLOF GIGON. *Untersuchungen zu Heraklit.* Leipzig, 1935.
Pp. viii + 163.

This study of Heraclitus is announced as an answer to Reinhardt's *Parmenides und die Geschichte der griechischen Philosophie*. In form it is a running commentary upon the fragments which the author has sought to make explain one another and in which process the chief instrument used is analysis of the balanced rhetorical structure, for the author apparently feels that Heraclitus intended to make his sentences vivid examples of his doctrine of the essential identity of contraries. Since the study is divided into five chapters dealing with the principle, cosmology, physiology, the life in this world and the next, and theology, the same fragment has sometimes to be treated several times according to its different aspects.

Gigon's contention that Heraclitus had freed himself from the question of the original material substance out of which the other substances of the universe had been derived, that for him the eternal was not a particular material but a living relationship, is certainly sound. It is all the more surprising to find that he believes Heraclitus to have set up a theory of world-periods and to have assumed an *ἐκτύρωσις*, an interpretation to which he is led, I believe, by an exaggeration of the "parallelism of construction" and by the conventional misinterpretation of the theory of contraries in Presocratic philosophy. He accepts without question (p. 112) the statement of Theophrastus according to which the psychology of Heraclitus was based upon the interaction of contraries. A knowledge of Heidegger's essay on *ἀλλοίωσις* in Presocratic philosophy would have radically altered Gigon's view of the troublesome notion of contrariety in early philosophy and consequently many particular interpretations in this book. Ultimately it is the notion that the theory of contraries logically requires "das totale Umschlagen der Gegensätzhälften in einander" which causes him to take *μέτρα* in fragment 30 (and hence, too, in fragment 94) as temporal and so to construct the curious theory which is outlined in his interpretation of fragment 31: the change of fire into sea refers to the periodic change of all the elemental fire into the first stage of the cosmos, while the change of sea to earth, stars, and back again is intracosmical. The first result of this thesis is the conclusion that the fire which Heraclitus identified with the cosmos ("eine rein heraklitische Gegensatzkonstruktion" Gigon calls it, p. 101) has nothing to do with phenomenal fire, a notion curious enough in itself and for which one would expect some evidence in the fragments but, further, utterly incompatible with the thorough "empiricism" which Gigon constantly attributes to Heraclitus. Moreover, the intracosmical circuit of change Gigon has to suppose is at once continuous and periodical. But what

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can this mean? If the change of water to fire (i. e. the stars) and earth and of this fire and earth to water is continuous, there must be at the moment of the *ἐκρύπσις* some fire, water, and earth, all of which at that moment change directly into the elemental fire; and yet Gigon's interpretation of the last sentence of fragment 31 makes the whole cosmos become sea again before the *ἐκρύπσις*, a proceeding of which there is neither any hint in the fragments nor any reasonable explanation in the system. Furthermore, Gigon has to interpret the *πρηστήρ* as *ἀναθυμίασις*, a notion which I think few scholars will accept so long as no evidence is adduced for that meaning and against Burnet's well-documented interpretation of it as "a fiery water-spout." Burnet's interpretation also explains how fire becomes water in the phenomenal world, a process necessary even on Gigon's theory although he implies that such a process is unthinkable.

The comparison of fragments 90 and 88 which Gigon believes makes the assumption of an *ἐκρύπσις* necessary appears to me to show the danger of Gigon's formalistic method, for the opposition *πῦρ-πάντα* is not analogous to *ζῶν-τεθνηκός, ἐγρηγορός-καθεύδων, νέον-γηραιόν*. If we are to take the terminology of Heraclitus as seriously as Gigon does, we must distinguish first between the *identification* of the apparent contraries in fragment 88 and the relation of *equivalence* in fragment 90 and also we must remark the plural, *τὰ πάντα*, in the latter fragment which means not that *the whole* but that all things individually and collectively are equivalent to fire in varying amounts. This is just the reason why *ζῶν-τεθνηκός* etc. can be said to be *ταύτό*, because they may all be "expressed in terms of fire" just as goods may be expressed in terms of gold. This implication in the plural, it seems to me, gives the clue to the troublesome phrase *τὸν αὐτὸν ἀπάντων* of fragment 30; all the individual phases of this world form a single identical cosmos because they can all be reduced to a least common denominator, fire. This fragment asserts that it is *this cosmos* that is fire; I cannot believe that it is reconcilable with an *ἐκρύπσις* or with world-periods of any kind.

Gigon defends fragment 76 and claims that Heraclitus preceded Empedocles in assuming four elemental phases; this he thinks fragment 126 proves. But the four "qualities" of 126 prove nothing about the number of elements; here Gigon like most scholars is led astray by the tacit assumption that on the doctrine of "contraries" a single "contrary" may have only a single characteristic. Moreover, the chief objection to the account of Maximus is not the introduction of "air" but the words *ζῆ πῦρ τὸν γῆς θάνατον* which asserts a cyclical change that Aristotle explicitly denies to *all* Presocratics. (This previously unnoticed fact incidentally casts suspicion upon the generally

accepted doxographical accounts of a double ἀναθυμίασις in Heraclitus.)

From fragment 53 Gigon extracts by his "structural parallelism" the notion that Heraclitus believed those who die in war become immortal (so τοὺς μὲν θεοὺς ἵδαιτε), and he explains fragment 62 as meaning that the gods are the souls of those who have died nobly which thereafter live as ἐπιχθόνιοι. Proceeding from fragment 28, Gigon concludes that Heraclitus believed in a punishment by fire for the evil, and he argues that Heraclitus envisaged a single God separate from the world of which he is the helmsman. All the same Gigon practically admits (p. 146) the underlying identification of συνάψις-πῦρ-θεός; and an unprejudiced eye must admit that fragment 67 uses θεός and πῦρ as equally proper terms for the ordered process which for Heraclitus is the universe. Here, too, Gigon's attempt to escape the necessary conclusions of this fragment by a subtle distinction between ἀλλοιοῦναι and μετακίπτεσθαι had already been forestalled by Heidel's treatment of these words in the essay referred to above.

Further discussion of details is impossible here, although the book contains much that is worthy of discussion. The central thesis would establish Heraclitus as an empiricist in revolt against the Milesians and under the influence of Xenophanes. Many of the exegetical passages deserve the close attention of students of early Greek literature as well as of historians of philosophy, even though few competent students, I think, will admit that the reconstruction of Heraclitus' system here proposed is satisfactorily supported by the evidence at our disposal.

EUGÈNE DUPRÉEL. *Les Sophistes: Protagoras, Gorgias, Prodicus, Hippias*. Neuchâtel, Éditions du Griffon, 1948-49. Pp. 408. (*Bibliothèque Scientifique* 14: *Philosophie et Histoire*).

In 1922 M. Dupréel published *La Légende Socratique et les Sources de Platon* in which he undertook to revolutionize the history of Greek philosophy by maintaining not only that the events of Socrates' life, his physical appearance, and even his condemnation and death are mere fictions of Plato and the so-called Socratic writers but that there never was any Socratic philosophy at all nor any original Platonic or Aristotelian philosophy either. What is conventionally called Aristotelianism, he explained, is really the doctrine of Hippias of Elis with an admixture of the ethics of Prodicus; and as for Plato, he had neither any concern for philosophical truth nor any consistent point of view of his own but was simply a brilliant and irresponsible composer of literary pastiches in which he put together as suited his whim but always to the greater glory of his lay-figure, Socrates, the doctrines that he looted from Protagoras, Gorgias, Prodicus, and Hippias.

Merely as an inversion of the Taylor-Burnet hypothesis Dupréel's thesis had its amusing aspect; but the way in which he eliminated that rival paradox to make way for his own is also instructive for his method of handling evidence. That Socrates was not the author of the theory of ideas, he insisted, "Aristotle affirms, and it requires the erudite eccentricity of a Taylor to maintain the contrary" (*La Légende*, p. 190). Yet when Aristotle affirms that Socrates was not the author of the theory he also affirms that Plato was (*Metaphysics* 987 A 1-10, cf. 1078 A 9-32 and 1086 A 31-B 11), and one hesitates to characterize the eccentricity required to suppose that Aristotle's statement refutes Taylor's theory of Socrates without at the same time refuting Dupréel's theory of Plato. The reviewers did not fail to point out the complete lack of cogency in Dupréel's construction, which was correctly characterized by one of them as a chain of hypotheses all depending ultimately from an unsupported hypothesis, the chain as a whole supposedly having none of the weakness of all of its component links;¹ and another, after having described Dupréel's method in similar terms, remarked: "I am afraid that I must say to him what Socrates said to Hippias: ἐνθυμούμαι, ὅ ἐταίρε, μὴ παύσης πρὸς με καὶ ἐκὼν ἐξαπατᾷς."²

M. Dupréel has now repeated much of the content of his earlier

¹ A. Mansion, *Revue Neo-Scholastique de Philosophie*, XXVI (1924), p. 217 in his review of *La Légende Socratique*, *ibid.*, pp. 214-18.

² A. Diès in his review of *La Légende Socratique* reprinted in his book, *Autour de Platon*, pp. 182-209. See also the reviews by Nestle (*Phil. Week.*, XLII [1922], pp. 1110-12), Shorey (*Class. Phil.*, XVII [1922], pp. 268-71), Carteron (*Rev. Philosophique*, XCVI [1923], pp. 122-34), and the remarks of L. Stefanini in his *Platone* (references *sub nomine* Dupréel in the *Indice dei Nomi*, II, p. 523).

book and by employing the same method with even greater abandon has staked out still more extensive claims for Protagoras, Gorgias, Prodicus, and Hippias in the four monographs on these sophists that constitute his new volume. To it the criticisms of the earlier one apply with proportionate intensification. He has answered none of them³ but instead proclaims from the eminence of his self-assurance that truth needs no excuses (p. 403). How he has reached this truth a few typical examples will suffice to show.

Mistranslation is one way. $\tauὴν ἢ τὰ πάντα ἔστιν; . . . πάντα ὧν πᾶν ἔστι$ (*Dissoi Logoi* 5 [15]) means to Dupréel (p. 211, cf. also p. 93) ". . . est une chose ou est-il toutes choses? . . . Si l'homme est tout, il est en quelque façon"; and then he assures us that this argument is modelled upon that of *De Melisso* 979 B 9-10, $\epsilonἰ γὰρ τὸ μὴ ὂν ὂν ἔστι καὶ τὸ ὂν ὂν ἔστιν, ἅπαντα ἔστι,$ ⁴ which he says means "si un être est, il doit être tout." Neither passage means anything like what he says it does, nor has either anything to do with the other. Truth needs no excuses, but none exists for an interpreter of Greek texts who thinks that ὧν is the present participle of the verb "to be."

Another way is the manufacture of evidence by the mutilation of texts. For example, Dupréel writes (p. 244): "Rapprochons d'abord la première phrase de ce paragraphe 2 (*scil.* of the Hippocratic *De Arte*): $\deltaοκεί δὴ μοι τὸ μὲν σύμπαν τέχνη εἶναι οὐδεμία οὐκ εἶδωσα$, de *Politique* 284 D: $\deltaοκεῖ μοι . . . ὡς ἄρα ἡγητέον ὁμοίως τὰς τέχνας πάσας εἶναι$. Des deux côtés le contexte et l'esprit de l'ensemble montrent assez qu'il n'y a pas là une analogie fortuite et sans portée." Whatever analogy there may be between the sentences here printed, however, neither one means anything like the sentence of the *Politicus* that Dupréel pretends to quote. That sentence has no

³ Without so much as noticing Diels' elaborate refutation (*Autour de Platon*, pp. 188-204) he repeats (pp. 202, 318) his earlier assertion that *Hippias Major* 301 B proves Hippias to have rejected the theory of ideas separate from sensible objects (i.e. "Platonism") and to have espoused instead a theory of the reality of integral beings that possess at once a "form" and a capacity to act upon one another (i.e. "Aristotelianism"). To Diels' earlier refutation I would for the present add only the following note. The form $\delta\iota\alpha\epsilon\kappa\eta\varsigma$ in the passage of the *Hippias Major* ($\mu\epsilon\gamma\acute{\alpha}\lambda\alpha . . . \kappa\alpha\iota \delta\iota\alpha\epsilon\kappa\eta \sigma\acute{\omega}\mu\alpha\tau\alpha \tau\eta\varsigma \omicron\upsilon\sigma\iota\alpha\varsigma \pi\epsilon\phi\upsilon\kappa\acute{o}\tau\alpha$) is no reason for supposing that these words are quoted from Hippias of Elis. Dupréel contended that "the form $\delta\iota\alpha\epsilon\kappa\eta\varsigma$ is found here only because Hippias wrote in the Doric dialect" (*La Légende*, pp. 203-4); and even Miss Tarrant in her commentary (*The Hippias Major Attributed to Plato* [Oxford, 1928], p. 78) wrote "possibly we have here a word traditionally a favorite of Hippias himself, put into his mouth in the Doric form he would naturally use and parodied in the same form by Socrates at 301 E." Yet $\delta\iota\alpha\epsilon\kappa\eta\varsigma$ (*pace* Liddell and Scott, s. v.) is not the Doric form of the word but the regular Attic form, as is proved by at least four public inscriptions of the 4th and early 3rd centuries B. C. (*I. G.*, II², 1666 B [line 60], 1668 [line 81], 1361 [line 5], 1682 [line 10]) and as any Platonic commentator might have learned by consulting Moeris (p. 195 [Bekker]) or Meisterhans, *Grammatik der attischen Inschriften*² (1900), p. 16, n. 76.

⁴ This is the text of Diels and of Apelt. Dupréel (p. 211, n. 1) prints the text of Bekker (. . . $\tauὸ \tau\epsilon \muὴ \delta\upsilon \dot{\epsilon}\sigma\tau\iota . . . \acute{\alpha}\pi\alpha\tau\tau\acute{\alpha} \dot{\epsilon}\sigma\tau\iota$); but even that will not yield the meaning that he ascribes to it.

stop after εἶναι but reads: . . . ὥς ἄρα ἡγητίον ὁμοίως τὰς τέχνας πάσαι εἶναι καὶ μᾶζόν τι ἅμα καὶ ἑλαττον μετρεῖσθαι μὴ πρὸς ἀλλήλα μόνον ἀλλὰ καὶ πρὸς τὴν τοῦ μετρίου γένεσιν.⁵ It means that the existence of all the arts and measurement by an absolute standard imply each other; and this meaning is assured, if assurance be needed, by the following sentence, τούτου τε γὰρ ὄντος ἐκεῖνα ἔστι, ἀκείνων οὐσῶν ἔστι καὶ τοῦτο, μὴ δὲ ὄντος ποτέρου τούτων οὐδέτερον αὐτῶν ἔσται ποτέ. This not only has nothing to do with the words quoted from the *De Arte*; it is entirely alien to their context, in which the existence of any art is supposedly assured by the very fact that it has been named.⁶ By such "analogies," however, Dupréel establishes the truth that no one must question.

The same word or phrase found in two different writings, however common it may be or however different the contexts in question, suffices him for proof that both compositions derive from the doctrine of one of his four sophists; and texts that expressly contradict his grand construction are ordinarily not mentioned at all or else are interpreted as meaning the opposite of what they plainly say. So on p. 314, for example, the theory of Non-Being in Plato's *Sophist* is said to be in complete accord with that of the Hippocratic *De Arte* because in *Sophist* 238 C the Stranger says that τὸ μὴ ὄν αὐτὸ καθ' αὐτό is ἀδιανόητόν τε καὶ ἀρρητόν καὶ ἀφθεγκτόν καὶ ἀλογόν and in *De Arte*, chap. 2 the author asserts that τὰ μὲν ὄντα αἰεὶ ὁράται τε καὶ γινώσκεται, τὰ δὲ μὴ ὄντα οὔτε ὁράται οὔτε γινώσκεται. Dupréel apparently expects his readers not only to believe that τὰ μὴ ὄντα in the latter sentence means the same thing as Plato's τὸ μὴ ὄν αὐτὸ καθ' αὐτό but also not to remember that according to the Stranger (*Sophist* 250 D-E) Being in this sense (τὸ ὄν αὐτὸ καθ' αὐτό) is as obscure as absolute Non-Being whereas (258 B-D) τὰ μὴ ὄντα in the sense of the *De Arte* exist just as τὰ ὄντα do. This argument of the *De Arte* far from being "in complete accord" with the doctrine of the *Sophist* reflects the very kind of confusion that Plato in that dialogue undertook to dispel.

The Hippocratic *De Arte*, Dupréel asserts (p. 251), is an authentic work of Hippias. Does not the author of that essay say (chap. 13 [12: VI, p. 24, Littré]) that the medical art ἀνάγκας εὗρηκεν ἥσιν ἡ φύσις ἀζήμιος βιασθεῖσα μεθήσιν (<scil. τὰ σημεῖα>), and does not Plato put into the mouth of Hippias the words ὁ δὲ νόμος, τύραννος ὢν τῶν ἀνθρώπων, πολλὰ παρὰ τὴν φύσιν βιάζεται (*Protagoras* 337 D)?[†] "In both places," says Dupréel (p. 250), "art is said to do some violence to nature, though in the latter case it is done by law in general, the work of men, and in the former only by medicine and its rules. The word βιάζεσθαι is found in both statements." Such reasoning could as well support the thesis that the *De Arte* was the work of Antiphon,

⁵ This is the reading of the MSS, but the sense is not substantially affected if εἶναι [καὶ] μᾶζόν τε be read with Burnet and Diès.

⁶ Dupréel himself elsewhere (p. 308) recognizes this as the meaning of the argument in *De Arte*, chap. 2 when he wants to identify it with the implication of Theaetetus' remark in *Sophist* 221 D 3-4; but he says nothing of the fact that this argument is inconsistent with the author's later statement (chap. 6) that something may have οὐσίην οὐδεμίην ἀλλ' ἢ ὄνομα (cf. F. Heinemann, *Nomos und Physis*, p. 157).

whose emphasis upon the hostility of νόμος and φύσις is preserved in his own words and who wrote τῶν δὲ τῇ φύσει συμφύτων εἴαν τι παρὰ τὸ δυνατόν βιάζεται . . . οὐδὲν ἔλαττον τὸ κακόν . . . (Frag. B 44 [II, p. 347, Diels-Kranz]). It could be argued that this remark of Antiphon's leaves room for an ἀζήμιος βία as the sentence put into the mouth of Hippias does not, though the truth is that neither one as it stands says anything resembling the sentence of the *De Arte*. Dupréel's crowning argument for Hippias' authorship of the *De Arte* is still more amazing. At the end of the essay (chap. 14 [13: VI, p. 26, Littré]) the author refers to expositions of those who know the art ὡς ἐκ τῶν ἔργων ἐπιδεικνύουσιν, οὐ τὸ λέγειν καταμελήσαντες⁷ ἀλλὰ τὴν πίστιν τῷ πλήθει ἐξ ὧν ἂν ἴδωσιν οἰκειότερην ἡγεύμενοι ἢ ἐξ ὧν ἂν ἀκούσωσιν. Dupréel is sure (p. 251) that this must be an application of Hippias' notion of the priority of action to words, for in Xenophon's *Memorabilia* IV, 4, 10 Hippias says that many who speak justly act unjustly but no one who acts justly could be unjust. Dupréel is not troubled by the fact that Hippias says this in reply to Socrates' words, εἰ δὲ μὴ λόγῳ ἀλλ' ἔργῳ ἀποδείκνυμαι· ἢ οὐ δοκεῖ σοι ἀξιοτεκμαρτότερον τοῦ λόγου τὸ ἔργον εἶναι;⁸ He is not troubled either by the fact, which he does not mention, that this notion was an early commonplace.⁹ It is no indication at all of the authorship of the *De Arte*, where its expression, moreover, by an amusing coincidence is more nearly parallel to a fragment of Antiphon's than it is to the words put into the mouth of Hippias.¹⁰

⁷ So Gompers (*Apologie der Heilkunst*² [1910]) instead of καταμελήσαντες (cf. also L. Edelstein, ΠΕΡΙ ΑΕΡΩΝ und die Sammlung der Hippokratischen Schriften, p. 108, n. 1).

⁸ According to Dupréel not only must anything that Xenophon or Plato puts into a sophist's mouth have come from that sophist's own writings but this is also true of anything that the sophist's interlocutor gets him to admit or uses in refutation of him. So, for example, "if Hippias in the *Hippias Major* is discomfited by the examples with which Socrates confronts him, that is only a trick of Plato's. . . . Socrates in order to confound his interlocutor uses ideas borrowed from that interlocutor himself and turns them against him" (p. 301, cf. also pp. 204, 218). Even this remarkable "canon," however, is not flexible enough for Dupréel. Since the words of Protagoras in *Protagoras* 350 D-351 A are not in accordance with Dupréel's notion of his doctrine, they must represent not anything that Protagoras believed but the doctrine of Hippias (p. 252)!

⁹ Cf. the words of Socrates to Critoboulus in *Memorabilia*, II, vi, 6; and for the proverbial superiority of ocular evidence: Heraclitus, frag. B 101 a (I, p. 173, 15-16 [Diels-Kranz]); Solon, frag. 8, 7-8 (Diehl²); Herodotus, I, 8, 2; and Empedocles' protest against this popular notion (frag. B 3, 9-13 [I, p. 310, 8 ff., Diels-Kranz]). For the ethical application in *Memorabilia*, IV, 4, 10 cf. Democritus, frags. B 55 and 82 and Antiphon, frag. B 56.

¹⁰ Frag. 34-35 (*Antiphontis Orationes et Fragmenta* ed. F. Blass², p. 121): οἱ γὰρ ἄνθρωποι ἅπαντες ὁρῶσι τῇ ὅψει πιστότερα ἡγοῦνται ἢ οἱς εἰς ἀφανὲς ἔκει ὁ ἐλεγχος τῆς ἀληθείας. Dupréel never mentions Antiphon, though he is one of the few sophists of whose authentic writings extended fragments are now available and though Heinemann has argued (*Nomos und Physis*, pp. 142-3) that, if *Protagoras* 337 C-D accurately reproduces Hippias' words, Hippias was merely a popularizer

By the same kind of inconsequence Dupréel concludes that wherever in the Platonic dialogues εὔρεσις, δύναμις, μέτριον, or their cognates appear they are leit-motifs announcing Hippias as the author of the doctrine there expounded (p. 323). In *Phaedrus* 267 B Socrates, having said that Prodicus claimed the discovery that art demands discourses which are neither long nor short but μέτριοι, adds that Hippias, he thinks, would cast his vote with Prodicus. To Dupréel (pp. 264-5) this means that Hippias was the real author of this notion; and, when in *Sophist* 263 A Theaetetus, in reply to the Stranger's question whether "Theaetetus is seated" is a long statement, says with amusement οὐκ, ἀλλὰ μέτριος, Dupréel (pp. 322-3) concludes that this must be an imitation of the same original text to which *Phaedrus* 267 B alludes and that therefore Hippias must have assimilated the falsity of statements to a "lack of moderation" and believed that a discourse which holds to the strict expression of truth is neither too long nor too short. Moreover, since the notion of μέτριον plays a great part in the *Philebus*, the doctrine of the *Philebus* too must come from Hippias; and, since this dialogue is generally supposed to show Pythagorean influence, that merely proves that Hippias must have been connected with the great western school of mathematicians (p. 342).¹¹ In fact, the only "evidence"

of the doctrine that Antiphon had earlier espoused. In view of Dupréel's arguments for assigning the *De Arte* to Hippias and his silence concerning Antiphon, it is both amusing and instructive to observe the similarities between the *De Arte* and the fragments of Antiphon that one could cite to maintain a thesis. The rare word ἐπιθύμημα (chap. 1 [VI, p. 3, 5, Littré]) is cited as peculiar to Antiphon (frag. B 110); so are (frag. B 76) the construction of καταμελεῖν with the accusative (chap. 14 [13, VI, p. 26, 10-11, Littré]) and (frag. B 8) the use in prose of the poetical ὀδμαί (chap. 13 [12, VI, p. 24, 5, Littré]). The bold phrase, γνώμη δψει (chap. 11 [VI, p. 20, 3, Littré]), with which τῆς δόξης δμμασιν of Gorgias, *Helen*, § 13 has been compared, comports both with Antiphon's use of γνώμη (cf. frags. B 1, B 2, B 3) and with that of δψει for ὀφθαλμοῖς especially attested for him (frag. B 7). It is known that Antiphon wrote on medical subjects (cf. III, p. 654, 17 ff. [Diels-Kranz]); and his frag. B 2 can be cited as a parallel to *De Arte*, chap. 7 (VI, p. 10, 23-24, Littré). Most striking of all, however, is the fact that the unusual contrast of νομοθετήματα and βλαστήματα in *De Arte*, chap. 2 (VI, p. 4, 11-12, Littré) has its closest parallel in Antiphon's use of νομοθετῆται of τὰ κατὰ νόμον (frag. B 44, col. 2, 30 ff.) and of βλαστός-βλαστάνειν as the characteristic indication of φύσις (frag. B 15). All of this and more too would not constitute evidence that Antiphon wrote the *De Arte*, which he certainly did not; but it shows by comparison how utterly baseless is Dupréel's assumption that Hippias was its author.

¹¹ Dupréel considers Hippias of Elis to have been "one of the greatest mathematicians of antiquity" (p. 189), this solely on the ground that it was he who invented the "quadratrix" to which Proclus refers (*In Euclidem*, p. 272, 7-10 and p. 356, 10-12 [Friedlein]). In the first place, it ought to be obvious that Hippias of Elis could have discussed or even discovered this curve without having been either a systematic mathematician (cf. Aly, *Formprobleme der frühen griechischen Prosa*, pp. 144-6) or a mathematical philosopher. Moreover, although Björnbo (*R.-N.*, VIII, 1708-9), Tannery (*Mém. Scientifiques*, II, pp. 1 ff.), and Heath (*History of Greek Mathematics*, I, pp. 182, 219, 225-6) believed

there is that τὸ μέτριον played any rôle in the thought of Hippias is the latter's trivial suggestion in *Protagoras* 338 A-B that Protagoras and Socrates choose an umpire who φυλάξει τὸ μέτριον μῆκος τῶν λόγων ἐκατέρου. Dupréel might just as well have argued that all Platonic contexts in which the notion of μέτριον occurs were lifted from Antiphon, who used the terms μετριολόγος (frag. B 100) and συμμετρίαι (frag. B 106), or from Democritus, who said ἀνθρώποισι γὰρ εὐθυμία γίνεται μετρίότητι τέρψιος καὶ βίου συμμετρίῃ (frag. B 191, cf. frags. B 233 and B 285). His proof of the rôle of δύναμις in Hippias' "philosophy" is, if anything, still more fantastic. We are told (p. 315) that *Sophist* 247 D-E (. . . τίθεται γὰρ ὅρον ὀρίζειν τὰ ὄντα ὡς ἔστιν οὐκ ἄλλο τι πλὴν δύναμις) is "a fragment of Hippias, assuredly the most significant of all" and that (p. 367) the definition of "faculties" in *Republic* 477 C is shown by the Greek itself to belong to Hippias, presumably once more because of the word δύναμις (φήσομεν δυνάμεις εἶναι γένος τι τῶν ὄντων αἷς δὴ καὶ ἡμεῖς δυνάμεθα ἃ δυνάμεθα καὶ ἄλλο πᾶν ὅτι περ ἂν δύνῃται). The only "proof" offered of this and of all the general assertions that Hippias had "a philosophy of action or the capacity to act, applied to the production of a synthesis of Being and action and to the determination of one by the other" is the following (p. 276). Because in *Cratylus* 425 C Socrates says νῦν δὲ τὸ λεγόμενον κατὰ δύναμιν δεήσει ἡμᾶς περὶ αὐτῶν πραγματεύεσθαι, which seems to refer to the same proverb as that to which he refers in *Hippias Major* 301 C with the words οὐκ οἶα βούλεται τις . . . ἀλλ' οἶα δύναται, Dupréel takes the two passages to be "parallel" to *De Arte*, chap. 9 (VI, p. 16, 12-13 [Littre]), ἐξεύρηται γὰρ μὴν οὐ τοῖσι βουλευθεῖσιν ἀλλὰ τούτων τοῖσι δυνηθεῖσιν, and concludes from this that "chaque fois que l'on rencontre les idées de pouvoir, de capacité, les mots δύναμις, δύνασθαι, etc., on est fondé de pressentir quelque réminiscence de notre penseur" (i. e. Hippias).¹² Need one really point out that, whoever

that the Hippias to whom Proclus refers in these two passages was the sophist of Elis, the identification remains more than doubtful. The fact that Proclus mentions Hippias of Elis in his Summary (*In Euclidem*, p. 65, 14 [Friedlein]) as having spoken of the fame that the brother of Stesichorus gained in geometry makes it the more strange that he does not mention any geometrical accomplishment of the sophist himself in that section; nor does Aristotle ever mention the quadratrix of Hippias, although he discusses the attempts of Antiphon, Bryson, and Hippocrates of Chios to square the circle. Moreover, Proclus names the Hippias of the quadratrix between Nicomedes and Perseus (*op. cit.*, p. 356, 10-12), both of whom lived in the 2nd century B. C. (cf. *R.-E.*, XVII, 500 and XIX, 1021); and it is highly unlikely that he would thus have placed the sophist of the 5th century B. C. Hippias was a common name, and recently discovered inscriptions show that it was even commoner in Athens in the 3rd and 2nd centuries B. C. than had hitherto been supposed; Wilamowitz was fully justified (*Platon*, I², p. 136, n. 1) in declaring it mere arbitrariness to assign to the sophist the mathematical achievement in question on the basis of the name alone.

¹² This fantastic "canon" requires Dupréel to transgress his more general principle and to assert (p. 252) that *Protagoras* 350 D-351 A, though spoken by Protagoras, must really have been the doctrine of

the author of the *De Arte* was, this last passage is no evidence at all either of his having had a philosophy of "dynamism," such as Dupréel ascribes to Hippias, or of any intended reference to a particular author or philosophy in the passages of the *Cratylus* and the *Hippias Major*? In *Cratylus* 425 C τὸ λεγόμενον shows that Plato is adapting to his use a popular proverb; and the same thing is indicated in *Hippias Major* 301 C by the words, φασὶν ἄνθρωποι ἐκάστοτε παροιμαζόμενοι, which follow τε and which Dupréel conveniently omits from his quotation.¹³

These examples of Dupréel's reasoning are not unfairly chosen; they are in fact rather above the average of his arguments in cogency, as can be seen by comparing them with the following. When Socrates introduces an apophthegm with the phrase, φησὶν ὁ Λάκων (*Phaedrus* 260 E),¹⁴ this indicates that his source is the sophist of Elis "whose close connections with the Lacedaemonians are known" (p. 257). The appellation ξένος Ἐλεάτης itself suggests that this figure in the *Sophist* and *Politicus* is a mouthpiece for the doctrines of Hippias, who is called ξένος Ἐλεῖος in *Phaedrus* 267 B and *Hippias Major* 287 C; does not Socrates refer to the Eleatic Stranger as a superior spirit and Theodorus call him μετριώτερος (p. 307)? Whenever the authentic dialogues mention *cum grano salis* a man of

the historical Hippias (cf. note 8 supra). One might ask why there is nothing of this "dynamism," which is supposed to be the foundation of Hippias' philosophy, in the *Dissoi Logoi*, since that writing according to Dupréel (p. 191) is entirely constructed upon the unified doctrine of Hippias. His reasons for assigning all the content of the *Dissoi Logoi* to Hippias are no better, however, than those that he gives for the authorship of the *De Arte*. For a sober and well-founded account of the relation of the *Dissoi Logoi* to the different sophists and to Socrates cf. W. Nestle, *Vom Mythos zum Logos*, pp. 437-47.

¹³ The proverb occurs in Menander, frag. 50 (K) as ζῶμεν γὰρ οὐχ ὥς θέλομεν ἀλλ' ὥς δυνάμεθα, and Suidas (s. v. ζῶμεν) quotes this as "used by Plato in the *Hippias*," cf. also Caecilius Statius, frag. 11 (Ribbeck) and Terence, *Andria* 805. The common sentiment that one should not attempt the impossible or even wish for it (cf. Chilon in D. L., I, 70 and Stobaeus, *Ecl.* III, 172; Quintilian, IV, 5, 17) occurs in Plato's *Laws* 742 E; cf. Democritus, frag. B 3 (II, pp. 132, 17-133, 4 [Diels-Kranz]) and Gorgias, frag. B 11 a (II, p. 300, 23 [Diels-Kranz]). With this might be compared the injunction in the *De Arte* against the physician's undertaking to treat incurables (chaps. 3 [VI, pp. 4, 18-6, 1, Littré] and 8 [VI, p. 12, 14 ff.]); cf. *Art.*, chap. 58 (IV, p. 252, 8-17 [Littré]), *Prog.*, chap. 1 (II, pp. 110, 8-112, 11 [Littré]), Plato's *Republic* 360 E-361 A. For the somewhat different notion at the end of *De Arte*, chap. 9, that βούλησις is not enough but δύναμις is also required for accomplishment cf. Gorgias, frag. B 8 and Plato's *Gorgias* 509 D ff. and with what follows in the *De Arte* (δύναται δὲ οἱσι τὰ τε τῆς παιδείης μὴ ἐκποδῶν τὰ τε τῆς φύσιος μὴ ταλαίπωρα) cf. Hippocrates, *Lea*, chap. 2 (IV, p. 638, 14 ff. [Littré]): φύσιος γὰρ ἀντιπρησσοῦσης κενὰ πάντα· φύσιος δὲ ἐν τῷ ἀριστῷ ὁδηγεύσης διδασκαλίῃ τέχνης γίνεται (with *Lea*, chap. 3 on education cf. Antiphon, frag. B 60).

¹⁴ For this "Laconian saying" see Plutarch, *Apophthegmata Laconica* 233 B. On Laconian apophthegms in general cf. Aristotle, *Rhetoric* 1394 B 33 ff.; Plato's *Protagoras* 342 D-E; Plutarch, *Moralia* 510 F ff. For the phrase φησὶν ὁ Λάκων cf. Aristotle, *Rhetoric* 1419 A 31 ff.; Plutarch, *Moralia* 439 F; Cicero, *Tusc. Disp.* I, 46, 111 and V, 14, 40.

superior ability, one may safely see a reference to Hippias (pp. 261-2); and when in *Hippias Minor* 368 C Socrates says that Hippias wore a Persian girdle that he had woven himself this "makes it probable that the sophist had himself compared the royal art with that of a weaver as the Stranger does in the *Politicus*" (p. 234) and also justifies the ascription to Hippias of any passage in which the art of weaving is mentioned (e.g. p. 362 on *Republic* 401 A).

Upon reasoning such as this—and no page of the whole book rises above this level—depends Dupréel's discovery of the great new truth that Aristotle's reflections upon philosophy are a synthesis of the theses of Prodicus and Hippias (p. 140), that Prodicus was the author of the moral theories that constitute the doctrine called Socratic (pp. 148-9), that Socrates' remarks on measurement at the end of the *Protagoras* were taken from Hippias (p. 251), that in fact it is simply the doctrines of Hippias that are reproduced in the latter part of the *Phaedrus* from 259 onwards (pp. 256-65), in the opinions expressed by the Stranger in the *Sophist* (pp. 306-23) and the *Politicus* (pp. 230-42), by Parmenides in the *Parmenides* (pp. 323-33), and by Socrates in the *Cratylus* (pp. 265-79),¹⁵ in the *Theaetetus* (pp. 281-306),¹⁶ in the *Philebus* (pp. 333-49), in large portions of the *Republic*, which was constructed by combining the rival systems of Hippias and his "idealist" opponents (pp. 352-85), in the first part of Diotima's speech in the *Symposium* (pp. 385-

¹⁵ Hermogenes and Cratylus both represent the doctrines of Protagoras, whose notions are thus divided between them and presented with a purposeful incoherence (p. 265; n.b. that in *La Légende*, p. 240, Cratylus was the representative of the "mathematical idealism" that Aristotle combats in the *Metaphysics*). Since Dupréel's Hippias held what is popularly called the Aristotelian doctrine and violently opposed what has come to be known as Plato's theory of ideas, Dupréel has to maintain (pp. 278-9) that Socrates at the end of the *Cratylus* refers not to any such theory of ideas but to "a simple substantialist realism." This he does by quoting 440 B 4-6; but he does not mention the words with which Socrates introduces this passage (439 C ff.): *πότερον φῶμέν τι εἶναι αὐτὸ καλὸν καὶ ἀγαθὸν καὶ ἐν ἑκάστῳ τῶν ὄντων οὕτω ἢ μή; . . . αὐτὸ τοῖνον ἐκείνο σκεψόμεθα, μὴ εἰ πρόσωπόν τι ἐστὶν καλὸν ἢ τι τῶν τοιούτων, καὶ δοκεῖ ταῦτα πάντα ῥεῖν· ἀλλ' αὐτό, φῶμεν, τὸ καλὸν οὐ τοιούτον δεῖ ἐστὶν ὅλον ἐστὶν;* and later (439 E): *εἰ δὲ δεῖ ὡσαύτως ἔχει καὶ τὸ αὐτὸ ἐστὶ, πῶς ἂν τοῦτό γε μεταβάλλῃ ἢ κινῶιτο, μὴδὲν ἐξιστάμενον τῆς αὐτοῦ ἰδέας;* So Socrates explicitly says that he is not talking about "des êtres concrets du sens commun, étendus et temporal," as Dupréel asserts; and the *ἐν ἑκάστῳ τῶν ὄντων* in 440 B 6, as *αὐτὸ . . . ἐν ἑκάστῳ τῶν ὄντων* in 439 C 8 f. proves, refers to the ideas as do the similar phrases in *Phaedo* 78 D (*αὐτὸ ἑκάστων ὃ ἐστὶν, τὸ ὄν*), *Republic* 493 E (*αὐτό τι ἑκάστων*), *Republic* 596 A (*εἶδος γὰρ ποῦ τι ἐν ἑκάστῳ εἰώθαμεν τίθεσθαι*).

¹⁶ Since the "digression" of the *Theaetetus*, however, does not fit Dupréel's notion of Hippias, it must have been taken from Prodicus (pp. 287-9). It is amusing to observe that the philosophic soul, which is here supposed to represent the ideal of Prodicus in opposition to that of Hippias, is nevertheless spoken of as *γεωμετροῦσα . . . ἀστρονομοῦσα καὶ πᾶσαν πάντη φύσιν ἐρευνωμένη τῶν ὄντων ἑκάστου δλου* (173 E-174 A), activities the mere reference to which elsewhere is enough to cause Dupréel to ascribe the whole context to Hippias.

93),¹⁷ and in the conception of $\delta\phi\theta\eta\ \delta\acute{o}\xi\alpha$, the mathematical section of the *Meno*, and even the doctrine of reminiscence.¹⁸ The specific conclusions hardly matter, however, for by using Dupréel's "method" one could easily reach any number of conclusions inconsistent with his but equally startling and equally invalid. Even as it would be impossible in less space than a book at least as long as his to describe the paralogisms, the misinterpretations, and the suppression or ignorance of evidence on which each step in his construction is built, so it would have been unnecessary to take the space for as many examples of them as have here been given, were it not that several reviewers through irresponsibility or their own desire to reconstruct philosophical systems for the sophistical heroes of Dupréel, have declared that the book "has important consequences for the history of philosophy, especially for the solution of Platonic problems"¹⁹ or that it is "un allarme dato agli storici della filosofia e un invito."²⁰ An alarm it surely is, and it should be a warning of the depths to which the study of all ancient history may swiftly fall if such an irresponsible misuse of texts and such an uncritical attitude towards the rules of evidence, instead of being censured for what they are, are given by reviewers the honorific title of "la via intuitiva-filosofica."²¹

¹⁷ Socrates says (*Symposium* 198 D), $\phi\mu\eta\ \delta\epsilon\iota\ \tau\acute{\alpha}\lambda\eta\theta\eta\ \lambda\acute{\epsilon}\gamma\epsilon\iota\ \pi\epsilon\pi\lambda\acute{\iota}\kappa\epsilon\tau\alpha\ \tau\omicron\upsilon\ \epsilon\gamma\kappa\omega\mu\alpha\iota\omicron\mu\epsilon\nu\omicron\upsilon$, which according to Dupréel (p. 386) is "the Hippias manner of opposing truth to the adulterated charms of pure rhetoric"; but he is apparently unaware that Gorgias himself at the beginning of his Encomium on Helen said: $\acute{\epsilon}\gamma\omega\ \delta\acute{\epsilon}\ \beta\omicron\upsilon\lambda\omicron\mu\alpha\iota\ \dots\ \delta\epsilon\iota\ \tau\acute{\alpha}\lambda\eta\theta\eta\ \pi\alpha\upsilon\sigma\alpha\iota\ \tau\eta\varsigma\ \delta\iota\alpha\theta\eta\varsigma$ (II, p. 288, 11 ff. [Diels-Kranz]). Later (p. 392) Dupréel adduces as "proof" that Hippias was the source of the first part of Diotima's speech the phrase $\kappa\alpha\lambda\acute{\alpha}\ \acute{\epsilon}\pi\iota\tau\eta\delta\epsilon\upsilon\mu\alpha\tau\alpha$ in 211 C, for "this typical and rare expression" is used by Hippias in *Hippias Major* 286 A-B in giving the contents of his set speech about Neoptolemus and Nestor; but this expression, far from being "typical and rare" occurs among countless other places in *Laches* 180 C, *Gorgias* 474 D-E, *Republic* 394 E (in a sentiment that could not have been shared by Hippias), 444 E, 560 B (in a book which Dupréel says [p. 378] contains nothing significant for his subject!).

¹⁸ Pp. 304-5 and p. 386 ("nous savons de reste que le *Ménon* est à base de philosophie hippienne"). Dupréel does not observe, of course, that reminiscence is of knowledge gained while the soul is outside of the body (*Meno* 86 A), i. e. direct knowledge of the ideas. In note 1 on p. 304 he does not hesitate to ascribe to Hippias even the mathematical achievement ascribed to Theaetetus in *Theaetetus* 147 D-148 B and to suggest that Hippias was the real author of all the mathematical work usually ascribed to Theaetetus.

¹⁹ Cf. *Sophia*, XVIII (1950), p. 414.

²⁰ M. Untersteiner, *Rivista Critica di Storia della Filosofia*, V (1950), pp. 138-42. Untersteiner has himself sought to ascribe to Hippias Thucydides, III, 84, the prooemium of Theophrastus' *Characters*, and the *Anonymus Iamblichii*.

²¹ Untersteiner, *op. cit.*, p. 138. I must mention here by way of contrast the sound review of Dupréel's book by I. Lana, *Riv. di Filologia*, N. S. XXVIII (1950), pp. 354-62.

THE PHILOSOPHICAL ECONOMY OF THE THEORY OF IDEAS.

The objection with which in the *Metaphysics*¹ Aristotle introduces his criticism of the theory of Ideas expresses a difficulty which has tended to alienate the sympathy of most students who approach the study of Plato. The hypothesis, Aristotle says, is a superfluous duplication of the phenomenal world; it is as if one should think it impossible to count a number of objects until that number had first been multiplied. This objection, even tacitly entertained, distorts the motivation of the hypothesis; that it misrepresents Plato's express attitude toward scientific problems, the well known statement of Eudemus quoted by Simplicius on the authority of Sosigenes amply proves.² The complications of the planetary movements had to be explained, Plato asserted, by working out an hypothesis of a definite number of fixed and regular motions which would "save the phenomena." This same attitude is expressed in the *Phaedo* where Socrates explains the method of "hypothesis" which he used to account for the apparently disordered world of phenomena;³ the result of this method, he says, was the Theory of Ideas.⁴

The phenomena for which Plato had to account were of three kinds, ethical, epistemological, and ontological. In each of these spheres there had been developed by the end of the fifth century doctrines so extremely paradoxical that there seemed to be no possibility of reconciling them with one another or any one of them with the observable facts of human experience.⁵ The dia-

¹ *Metaphysics* 990 A 34 ff. It is repeated almost exactly at 1078 B 34-36.

² Simplicius, in *De Caelo*, p. 488, 18-24 (Heiberg).

³ *Phaedo* 99 D 4-100 A 8.

⁴ *Phaedo* 100 B 1-102 A 1.

⁵ Note the criticism and warning in *Phaedo* 101 E: ἀμα ὁ οὐκ ἂν φέροις ὅτι περὶ τοῦ ἀντιλογικοῦ περὶ τε τῆς ἀρχῆς διαλεγόμενοι καὶ τῶν ἐξ ἐκείνης ὁρμημένων, εἴπερ βούλοιό τι τῶν ὄντων εὔρειν; ἐκείνοις μὲν γὰρ ἴσως οὐδὲ εἰς περὶ τούτου λόγος οὐδὲ φροντίς. ἱκανοὶ γὰρ ὑπὸ σοφίας ὁμοῦ πάντα κυκῶντες ὅμως θύνασθαι αὐτοὶ αὐτοῖς ἀρίσκειν. They do not keep the "universes of discourse" clearly defined but think it legitimate, for example, to drag an epistemological difficulty into an ethical problem before they have completely canvassed the ethical phenomena and have set up an hypothesis to explain them. An example of this "childish" confusion is outlined in the *Philebus* (15 D-16 A; 17 A).

logues of Plato, I believe, will furnish evidence to show that he considered it necessary to find a single hypothesis which would at once solve the problems of these several spheres and also create a rationally unified cosmos by establishing the connection among the separate phases of experience.

The interests of Socrates,⁶ the subject-matter of the early dialogues, the "practical" tone of Plato's writings throughout make it highly probable that he took his start from the ethical problems of his day. It is unnecessary to labor the point that he considered it fundamentally important to establish an absolute ethical standard; that the bearing on this point of the "inconclusive," "exploratory" dialogues could not have been obscure to his contemporaries is obvious to anyone who looks at such evidence of the time as is furnished by the *Δισσοὶ Λόγοι* (which discusses the relativity of good and evil, fair and foul, just and unjust, true and false, and the possibility of teaching wisdom and virtue) or by the papyrus fragment of Antiphon the Sophist⁷ (where conventional justice is called adventitious and generally contradictory to natural justice which is defined as that which is truly advantageous to each individual). The necessity for an absolute standard of ethics which would not depend upon the contradictory phenomena of conventional conduct but would be a measure for human activities instead of being measured by them was forcibly demonstrated by the plight into which Democritus had fallen. He had bitterly opposed the relativism of Protagoras;⁸ yet two of his own ethical fragments show how vulnerable he must have been to counter-attack. "They know and seek fair things," he said, "who are naturally disposed to them."⁹ And, attempting to reconcile conventional law and natural good, he remarked, "The law seeks to benefit the life of men but can do so only when they themselves desire to fare well. For to those who obey it it indicates their proper goodness."¹⁰ This bald assertion of a difference between fair and

⁶ Cf. e. g. Aristotle, *Metaphysics* 987 B 1 ff.

⁷ *Oxyrh. Pap.* XI, 1364; Diels, *Fragmente der Vorsokratiker*, 4th ed., vol. II, pp. xxxii ff.

⁸ Plutarch, *Adv. Colot.* 1108 F-1109 A.

⁹ Democritus, *fragment* 56 (Diels): τὰ καλὰ γινώσκουσιν καὶ ζηλοῦσιν οἱ εὐφυνέες πρὸς αὐτά.

¹⁰ Democritus, *fragment* 248 (Diels): ὁ νόμος βούλεται μὲν εὐεργετεῖν

foul things, virtuous and vicious actions offers no standard whereby to determine the difference, no reason for the similarity of all fair things quâ fair and for their difference from all that are foul. So long as these are only characteristics of material individuals no standard can be found, for to measure individuals against one another is to succumb to relativism. To compare and contrast one must have a definite standard of reference which must itself be underivative lest it become just another example of the characteristic in question and so lead to an infinite regress. The "dialogues of search," by demonstrating the hopelessness of all other expedients, show that the definitions requisite to normative ethics are possible only on the assumption that there exist, apart from phenomena, substantive objects of these definitions which alone are the source of the values attaching to phenomenal existence.¹¹ The possibility of ethical distinctions, then, implies objective differences which can be accounted for only by the hypothesis of substantive ideas.

While this hypothesis makes an ethical system possible in the abstract, the problems raised by conscious human activity involve the construction of a complete ethical theory in the questions of epistemology. That a consistent and practical ethical theory depends upon an adequate epistemology, Plato demonstrates in the *Meno*. The subject of that dialogue is *virtue*, but it is with one of the popular practical questions about virtue that *Meno* opens the discussion. Socrates protests that such questions as the teachability of virtue must wait upon a satisfactory definition of virtue;¹² but *Meno's* failure to produce a definition makes him fall back upon the "eristic argument" that one cannot search for either the known or the unknown.¹³ To the

βίον ἀνθρώπων. δύναται δὲ εἶναι αὐτοὶ βούλονται πάσχειν εἶ. τοῖσι γὰρ παθεμένοις τὴν ἰδίαν ἀρετὴν ἐνδείκνυται.

¹¹ *Euthyphro* 15 C 11-E 2; *Laches* 199 E (cf. 200 E-201 A); *Lysis* 222 E (N. B. 218 C-220 B 5: necessity of finding a *πρῶτον φίλον* which is the final cause of *πάντα φίλα*); *Charmides* (176 A); *Hippias Minor* (376 B: if *anyone* errs voluntarily, it must be the good man [who, of course, as good would not err at all]). Cf. *Protagoras* (361 C: the difficulties into which the argument has led show that it is necessary first to discover what *ἀρετή* is and then discuss its teachability).

¹² *Meno* 71 A 3-7. It is in the light of this that I find the Key to the riddles of the *Protagoras* in Socrates' remarks at the end of that dialogue (*Protagoras* 361 C 2-D 2). ¹³ *Meno* 80 E-81 A.

implication here that ethical problems are not susceptible of investigation Socrates answers that one can escape this difficulty only by supposing that learning or discovering is really recollection of that which has already been *directly* known.¹⁴ Here Socrates is not concerned with the details of the process; his contention is simply that, since determination of the characteristics of virtue presupposes a definition of its essential nature and to give such a definition presupposes knowledge of the essence, we must assume that essential virtue exists and has been directly known unless we are to surrender all possibility of considering ethical problems. Socrates is forced by Meno's insistence to discuss his question anyway, but his repeated objection that such questions demand a prior determination of the nature of virtue itself is a warning and an explanation of the paradoxical outcome of the consequent discussion.¹⁵

If men act virtuously without being able to teach virtue (that is, without being able to give a consistent account of the causes of their actions), it is because they have "right opinions" and so are virtuous by a kind of "divine grace."¹⁶ But such right opinions, though having results speciously identical with those of knowledge, are unstable, for they are haphazard, being unconnected by a chain of causality with the final cause. The recognition of this causal relationship, however, is knowledge and this is just recollection.¹⁷ Consequently until one bases his reasoning upon the knowledge of essential virtue, there can be no adequate solution of the problems of ethics.¹⁸ So it is that by argument and example the *Meno* demonstrates how, having to distinguish knowledge and right opinion in order to save the phenomena of moral activity, the ethical philosopher is forced to face the problems of epistemology.

But Plato was not satisfied with having proved that considerations of ethics require the assumption of substantive ideas and an epistemology consistent with such an hypothesis. The pragmatic relativism of Protagoras' ethics was, after all, a necessary result of his subjective realism; and Plato had before him the example of Democritus who, though insisting upon the reality

¹⁴ *Meno* 81 D 4-5. Note the word used for acquiring the knowledge in the first place: *ἀπαρτία* (81 C 6).

¹⁵ *Meno* 86 C 6-87 B 5.

¹⁶ *Meno* 99 A-D.

¹⁷ *Meno* 97 E-98 B.

¹⁸ *Meno* 100 B.

of definite moral standards, could not finally refute Protagoras since he had no adequate reason for giving mind the sovereignty over sensations. There is a winsome sadness in his confession of defeat expressed in the reply he makes the sensations give to the strictures of mind: "unhappy Intelligence, with evidence we give you you attempt our overthrow; your victory is your defeat."¹⁹ The saving of the phenomena of intellection and sensation is the primary duty of epistemology; if, however, it should appear that these phenomena can be saved in their own right only by setting up the same hypothesis as was found to be essential for ethics, the coincidence of results would by the principle of scientific economy enunciated in Plato's phrasing of the astronomical problem lend added validity to the hypothesis in each sphere.

The epistemological necessity for the existence of the Ideas is proved by the same indirect method as was used in establishing the ethical necessity. Since the phenomena to be explained have first to be determined, it is essential to proceed by analysis of the psychological activities, to decide the nature of these activities and their objects. In brief, the argument turns upon the determination of intellection as an activity different from sensation and opinion. In the *Timaeus*,²⁰ in an avowedly brief and casual proof of the separate existence of Ideas, it is stated that if intellection is other than right opinion it follows that there exist separate substantive Ideas as the objects of intellection. The indications of the essential difference of intellection and right opinion are there said to be three. Knowledge is produced by instruction, is always accompanied by the ability to render a true account or proof, and cannot be shaken by persuasive means, whereas right opinion is the result of persuasion, is incapable of accounting for itself, and is susceptible of alteration by external influence. The difference here mentioned is vividly exemplified in the myth of Er²¹ by the horrible choice of the soul concerning whom it is said: "he was one of those who had come from heaven, having in his former life lived in a well-ordered city and shared in virtue out of habit without philosophy."²² The

¹⁹ Democritus, *fragment* 125.

²⁰ *Timaeus* 51 D-E.

²¹ *Republic* 619 B ff.

²² In the parallel passage of the *Phaedo* (82 A-B) "philosophy" is glossed by "intelligence": ἀνὴρ φιλοσοφίας τε καὶ νοῦ.

Theaetetus, in its attempt to define knowledge, treats as the last possibility considered the suggestion that "true opinion" may be a constitutive element of knowledge, may in conjunction with a λόγος or "account" be knowledge itself.²³ As this proposal is tested, it is shown that, of the various possible meanings which λόγος might here have, the most satisfactory is "knowledge of the proper difference of the object known."²⁴ But if this "knowledge of the difference" is not to be, in turn, mere "right opinion" about the difference, an empty tautology, the definition is vitiated by a "circulus in definiendo."²⁵ In short, if "true opinion" and knowledge are not identical, the former can not be an essential element of the latter, either. The common assumption of a relationship between "right opinion" and knowledge is due to the external similarity of their results,²⁶ but the rightness of any particular opinion is simply accidental as Plato succinctly shows.²⁷ Right opinion is still essentially opinion; and this, the *Theaetetus* has already proved, cannot be knowledge, for it involves the possibility of error or wrong opinion which can be explained only as a mistaken reference to something known, although it is difficult to see how—if the term of reference be known—a mistaken identification is possible.²⁸ Opinion, then, is different from knowledge and secondary to it, for no satisfactory account of error can be given until the process of intellection has been explained.²⁹ Similarly the earlier part of the *Theaetetus* proved that knowledge can not be sensation or derived from sensation,³⁰ because sensation itself implies a central faculty to which all individual perceptions are referred and which passes judgment on them all.³¹ As in the *Republic*³² the proof that knowledge and opinion are different faculties is conclusive evidence for the fact that the objects with which they are concerned must be different, so here from the observation that the mind functioning directly without any intermediate organ contemplates the notions that are applicable to all things³³ pro-

²³ *Theaetetus* 201 C 8 ff.

²⁴ *Theaetetus* 208 D.

²⁵ *Theaetetus* 209 D 4-210 A 9.

²⁶ *Theaetetus* 200 E 4-6.

²⁷ *Theaetetus* 201 A-C.

²⁸ *Theaetetus* 187 B 4-200 D 4.

²⁹ *Theaetetus* 200 B-D.

³⁰ Cf. *Theaetetus* 186 E 9-187 A 6.

³¹ *Theaetetus* 184 B 5-186 E 10.

³² *Republic* 477 E-478 B 2.

³³ *Theaetetus* 185 E 1-2.

ceeds the conclusion that knowledge is not to be found in the perceptions but in the reflection upon them, since only in this process is it possible to grasp reality and meaning.³⁴ The attempt of the *Theaetetus* to define knowledge fails, and this failure demonstrates that the λόγος, the essential characteristic of knowledge, cannot be explained by any theory which takes phenomena to be the objects of intellection. That this is the purpose of the dialogue is revealed by the *Timaeus* passage above which shows that the λόγος is the δεσμός of the *Meno*,³⁵ the mark which distinguishes knowledge from right opinion in that dialogue and which was there identified with ἀνάμνησις. The *Theaetetus*, then, is an attempt to prove that the theory of Ideas is a necessary hypothesis for the solution of the problems of epistemology; the constructive doctrine of the *Sophist* demonstrates that it is a sufficient hypothesis for that purpose.³⁶ The process of abstraction and generalization which Aristotle thought sufficient to account for knowledge³⁷ was recognized by Plato,³⁸ but he considered it to be inadequate. In the *Parmenides*,³⁹ after advancing all his objections to the hypothesis, Parmenides is made to assert that it is still necessary to assume the existence of Ideas if thought and reasoning are to be saved; and in the *Phaedo*⁴⁰ Socrates outlines the theory of abstraction almost in the very words which Aristotle was to use, connects it with the theories of the mechanistic physics, and rejects it in favor of the theory of separate Ideas. The possibility of abstraction itself, if it is to have any meaning, Plato believes, requires the independent reality of the object apprehended by the intellect. That is the basis of his curt refutation of mentalism in the *Parmenides*.⁴¹ So the process of abstraction and analysis outlined in the *Philebus*, which is there said to be possible because of the participation of the phenomena in real Ideas,⁴² and which in a simple example

³⁴ *Theaetetus* 186 D 2 ff.

³⁵ *Meno* 98 A.

³⁶ Cf. *Sophist* 258 D-264 B and note the triumphant tone of 264 B 5-7.

³⁷ *De Anima* 432 A 3-14; *Post. Anal.* 100 A 3-B 17; cf. *Metaphysics* A, 1.

³⁸ *Charmides* 159 A 1-3; *Philebus* 38 B 12-13.

³⁹ *Parmenides* 135 B 5-C 3.

⁴⁰ *Phaedo* 96 B.

⁴¹ *Parmenides* 132 B C.

⁴² *Philebus* 16 C 10 ff. N.B. 16 D 2: ἀρῆσαι γὰρ εὐρεῖν.

of its use in the *Republic*⁴² is called "our customary method," is in the *Phaedrus*⁴³ designated as ἀνάμνησις and said to require the substantial existence of the Ideas and previous direct knowledge of them by the intellect. The successful "recollection" of the Ideas by means of the dialectical process is in the *Republic*⁴⁴ said to constitute intellection as distinguished from opinion, and the man who is capable of such activity is there described in terms parallel to the "mythical" description of the "winged intellect" of the *Phaedrus*.⁴⁵

The nature of the mental processes, then, can be explained only by the hypothesis of Ideas. Since no mere addition to right opinion from the sphere with which it itself deals can produce knowledge or make intelligible the fact of error and since no combination of sensations can account for apperception, knowledge cannot be synthetic or derivative. Knowledge as a special faculty dealing *directly* with its own objects must be assumed in order not only to explain the fact of cognition but also to make possible opinion and sensation as they are given by experience. The special faculty of knowledge, however, is characterized by direct contact of subject and object; since phenomena cannot enter into such a relationship with the subject, mediating organs being required in their case, it is necessary that the objects of knowledge be real entities existing apart from the phenomenal world and that the mind have been affected by them before the mental processes dealing with phenomena occur. Only so can one avoid the self-contradictory sensationalism of Protagoras, the psychological nihilism of Gorgias, and the dilemma of Democritus.

The effort to save the phenomena of mental activity leads to the same hypothesis as did the attempt to explain human conduct, and the ethical hypothesis is supported by the independent requirements of epistemology. There is, however, another sphere, naturally prior to knowledge and sensation and by which finally all epistemological theories must be judged. The Ideas are necessary to account for the data of mental processes; but the

⁴² *Republic* 596 A.

⁴³ *Phaedrus* 249 B 5-C 4. Cf. the extended demonstration of *Phaedo* 74 A 9-77 A 5 which is based upon epistemological considerations.

⁴⁴ *Republic* 479 E-480 A.

⁴⁵ *Phaedrus* 249 C.

physical world and its characteristics are not dependent upon these mental processes, and it is no more sufficient to assume an ontology which will fit the requirements of epistemology than it is to construct an epistemology in order to account for the phenomena of ethics. It is with this in mind that Timaeus, when in a physical discourse he uses a résumé of the epistemological proof of the existence of Ideas, apologizes for his procedure with the excuse that the magnitude of his main subject requires him to give the briefest possible demonstration.⁴⁷ The very language of this passage shows that Plato considered it as a requirement of sound method to develop his ontological hypothesis according to the data of the physical world itself. This requirement is explained in the *Theaetetus* where a detailed theory of psychological relativism is expounded⁴⁸ by way of considering the thesis that knowledge is sensation. Such a doctrine, in spite of the objections that can be brought against its epistemological and ethical consequences, may still present a correct account of the nature of existence as nothing but a flux of motions. What seem to be individual objects and characteristics would then be merely the transitory resultants of the component motions. In that case, knowledge would really be vivid sensations which are the functions of clashing and passing movements.⁴⁹ To argue that no practical ethics or adequate epistemology can be developed from such an account is pointless, for there could be no *naturally* valid criterion by which to evaluate the different moments of evidence.⁵⁰ Such a theory as that of Ideas would be a merely pragmatic hypothesis, and distinctions of good and bad, true and false would be at best only conventional and artificial. It is, then, necessary that the study of ontology be undertaken independently of the requirements of ethics and epistemology to discover what hypothesis will explain the data of physical phenomena as such.⁵¹ The data with which the investigation has to work are the constantly shifting phenomena of the physical world, and Plato accepts this unceasing flux as a characteristic of all phenomenal existence.⁵² This flux, however, is the datum which has to be explained, and his contention is simply that

⁴⁷ *Timaeus* 51 C 5 ff.

⁴⁸ *Theaetetus* 156 A-160 E.

⁴⁹ *Theaetetus* 179 C.

⁵⁰ *Theaetetus* 158 B-E.

⁵¹ *Theaetetus* 179 D.

⁵² Cf. *Timaeus* 27 D 5-28 A 4.

change itself is intelligible and possible only if there exist entities which are not themselves involved in the change. The argument in the *Theaetetus*⁵³ attempts to show that the constant flux of phenomena involves alteration as well as local motion but that alteration requires the permanent subsistence of immutable abstract qualities. The relativism that asserts the constant change of everything, however, makes attributes and perceptions the simultaneous resultants of the meeting of agent and patient, while agent and patient themselves are merely complexes of change without independent existence,⁵⁴ with the result that not only are all things constantly changing their characteristics but the characteristics themselves are constantly altering, and "whiteness" can no more be really "whiteness" than any other color.⁵⁵ Similarly, if the qualities themselves are always altering, the sensations which are defined by these constantly altering qualities are undifferentiated.⁵⁶ Such an account of the world involves the denial not only of fixed states and determinable processes but also of the laws of contradiction and the excluded middle.⁵⁷ The data of phenomenal change, then, logically require the hypothesis of immutable and immaterial ideas. The argument occurs again at the end of the *Cratylus* (where, however, it is connected with one form of the epistemological proof);⁵⁸ and Aristotle accuses the Protagoreans, in the same terms as does Plato, of denying the laws of logic.⁵⁹ In a passage obviously influenced by the *Theaetetus*,⁶⁰ he explains the difficulties of the relativists as due to their failure to recognize immaterial existences and to note the distinction between quantitative and qualitative change. Like Plato, Aristotle felt that a logical account of physical nature required some hypothesis of qualitative existence as underived from quantitative distinctions.

The digression on mensuration in the *Politicus*⁶¹ has the same intention. There Plato distinguishes between quantitative and qualitative "measurement," the former being only relative mea-

⁵³ *Theaetetus* 181 C-183 B.

⁵⁴ *Theaetetus* 182 B.

⁵⁵ *Theaetetus* 182 D 1-5.

⁵⁶ *Metaphysics* 1008 A 31-34; cf. *Metaphysics* 1009 A 6-12.

⁵⁷ *Metaphysics* 1010 A 1-37.

⁵⁸ *Theaetetus* 182 D 8-E 5.

⁵⁹ *Theaetetus* 183 A 4-B 5.

⁶⁰ *Cratylus* 439 D 3-440 C 1.

⁶¹ *Politicus* 283 D-287 A.

surement and the latter measurement against a norm,⁶² and castigates those who think all the world susceptible of quantitative measurement; their error lies in the supposition that all difference can be reduced to quantitative distinctions.⁶³ For this reason in the *Timaeus*, where the quantitative determinations of the minima of phenomenal air, fire, water, and earth are elaborated in great detail,⁶⁴ Plato still insists that there must be substantive Ideas of air, fire, water, and earth, apart from phenomena, immutable, the objects of intellection only,⁶⁵ and that phenomenal objects are what they are because they are imitations of these real Ideas.⁶⁶ Indications of the ontological necessity of the hypothesis are not lacking in this dialogue either. The most certain and evident characteristic of phenomena is their instability; they are all involved in the process of generation⁶⁷ and so imply a cause external to themselves.⁶⁸ Apart from the "mythical" form of the explanation to which this leads, the argument is the same as the indirect proof of the *Theaetetus*. The instability of phenomena can be explained only by assuming a world of Ideas as the source of phenomenal characteristics. To dispense with such a superphenomenal world is not only to identify right opinion and knowledge but, in fact, to say that phenomena are stable.⁶⁹ This brief remark of *Timaeus* sums up the results of the demonstration in the *Theaetetus* which shows that the relativistic ontology transgresses the law of the excluded middle and so can no more say that all is in motion than that all is at rest. To do away with stable qualities is tantamount to denying the possibility of change.⁷⁰ Yet it is the possibility of phenomenal alteration that was to be saved, for phenomena have

⁶² *Politicus* 283 D 7-284 B 2.

⁶³ *Politicus* 284 E 11-285 C 2; cf. Rodier, *Études de philosophie grecque*, p. 48, note 1.

⁶⁴ *Timaeus* 53 C 4-55 C 5; 55 D 7-57 C 6.

⁶⁵ *Timaeus* 51 A 7-52 A 4.

⁶⁶ *Timaeus* 50 C, 51 A 7-B 1 (cf. Shorey in *Class. Phil.* XXIII [1928], p. 358).

⁶⁷ *Timaeus* 28 B 8-C 2.

⁶⁸ *Timaeus* 28 C 2-3.

⁶⁹ *Timaeus* 51 D 6-7.

⁷⁰ Aristotle reproduces the argument in his own language in *Metaphysics* 1010 A 35-37.

no stability at all; ⁷¹ they are fleeting phases without persistent substantiality,⁷² but such they can be only if apart from them there are substances of which somehow the phenomena partake.⁷³

The physical phenomena, then, considered in themselves and not as objects of sensation or cognition still can be saved only by the hypothesis of separate, substantive Ideas. That the necessary and sufficient hypothesis for this sphere turns out to be the very one needed for ethics and epistemology makes it possible to consider the three spheres of existence, cognition, and value as phases of a single unified cosmos.

The apparently disparate phenomena of these three orders, like the seemingly anomalous paths of the planets, had to be accounted for by a single, simple hypothesis which would not only make intelligible the appearances taken separately but at the same time establish the interconnection of them all. The problem which Plato set others in astronomy he set himself in philosophy; the resulting theory of Ideas indicates by its economy that it proceeded from the same skill of formulation which charted for all time the course of astronomical hypothesis.

⁷¹ Cf. *Timaeus* 49 D 4 ff. (βεβαιότερα-D 7) and 51 D 5-7.

⁷² *Timaeus* 49 C 7-50 A 4.

⁷³ *Timaeus* 50 B-C. That the mere configuration of space is not enough to produce phenomenal fire, etc., 51 B 4-6 shows (N.B. καὶ ὅτι ἀπὸ μνημάτων τούτων δέχεται). All this, I think, makes Shorey's interpretation of 56 B 3-5 certain (*Class. Phil.* XXIII [1928], pp. 357-8). To interpret στερεὸν γέγονός here as "having received a third dimension" would be tautological, for the pyramid is *eo ipso* three-dimensional. Cf. also A. Rivaud in his introduction to his edition of the *Timaeus* (p. 26) in the Budé series.

Plato and His Contemporaries. By G. C. FIELD. New York, E. P. Dutton and Company, 1930. Pp. ix, 242.¹

This summary of the circumstances in which Plato worked will be of the utmost importance to the study of Greek philosophy. There was pressing need of such a book not only for beginning students but for those who saw themselves sinking in the uncharted morasses of the problems which have been organized and discussed by Professor Field. The sanity and open fairness of the treatment is especially commendable; and the exceptions that I venture to take to details hereafter are treated so fully only because the book is too excellent and important to be reviewed with cursory praise.

The first section, which treats of Plato's life and work, leans heavily on the Platonic Epistles. The question of authenticity is briefly discussed in an appendix in which Professor Field rejects the First as obviously spurious, "lets the Twelfth go," and expresses doubts about the Second. The rest he accepts as genuine. The opinion of the merit of this section will depend largely upon one's opinion concerning the Epistles. Professor Field remarks that the preservation of the Platonic letters "affords almost the only certain basis of our knowledge" about Plato's life; consequently, should one refuse to believe the letters genuine, much of the present section would lose all value. There are, besides, certain dubious conjectures throughout the section. Such is the statement that Plato was drawn to Socrates for the same reason as other young aspirants to a political career, that "the righteousness of Socrates gave him a touchstone by which to judge of politics and institutions and the behaviour of politicians. It was perhaps only at a later period and in reminiscence that the intellectual methods and ideals of Socrates began to appear to him as the standard by which to judge of theories and philosophies." This notion is in contradiction to the evidence of Aristotle which Professor Field himself accepts (pp. 204-5), for that represents Plato as already interested in abstract philosophy when he came under the influence of Socrates and as developing his own doctrines by reason of the discrepancies between Socrates' logical methods and the Heracliteanism to which Plato was already addicted.

By taking the pseudo-Platonic definitions as an indication that "the science of lexicography takes its rise in the Academy",

¹ This review utilizes marginal notes left by Professor R. M. Jones and conversations which he held with me just previous to his death.

Prodicus is despoiled of an honor which he could claim on Plato's own somewhat disrespectful evidence. There is a slight slip on page 36 where "Plato's *first* journey to Sicily" should read "*second*" and on page 37 where "the *second* journey" should be "the *third*."

The suggestion that Socrates is not the chief speaker in the *Sophist* and *Politicus* because Plato felt that "on these questions his thought had been specially influenced from some other direction" is confused by the simultaneous remark that "he was not himself going further than Socrates." And why, then, is Socrates the chief speaker in the *Theaetetus* which, whatever the outcome of the investigation, is concerned with the same kind of questions as the *Sophist*?

An unfortunate weakness of argument is introduced by the statement that the Sixth Letter mentions the Theory of Ideas as Plato's own contribution. It mentions the theory in laudatory terms as an accomplishment of two of Plato's pupils; but no word is added to designate the theory Plato's originally.

The note which follows Chapter IV presents concisely the chief evidence on the Socratic Question. The passage from the Seventh Letter (325C-326B) offers a dilemma to those who accept the Epistles as genuine and take the Dialogues as strictly biographical. But the Second Letter (314C) is troublesome, in turn, to those who accept the Epistles but consider the Dialogues as expressions of Plato's own doctrines. Field meets this by rejecting the Second Letter. The changes of view in the Dialogues Field admits to be few; but this criterion of difference among the Dialogues, even reduced to the extent he suggests, is vague and is nullified by the sensible doctrine of page 57 that different language or the emphasis of a different aspect of the same reality in several Dialogues does not prove any real difference of view. The fictitious character of Xenophon's *Oeconomicus* shows that the Socratic dialogue was not reserved to biographical material in the fourth century. I have mentioned here only the most striking articles of the summary.

The second section deals with the moral and political background of Plato's work, and here the tendency to make of Plato an orthodox and even reactionary thinker is much too strong for truth.

The kernel of this attitude may be found in the statement on page 91, "From one point of view, indeed, the chief aim of Plato's philosophy may be regarded as the attempt to re-establish standards of thought and conduct for a civilization that seemed on the verge of dissolution." Although it is true that Plato is concerned with combating the social relativism of the fourth century, it is a perversion of reasoning to extend this to mean that he was in sympathy with the ideals of the fifth century or

any previous age of Athenian society. To say that Plato criticizes the statesmen of his period "rather for falling short of the ideals which he and they shared in common" (page 91) is to speak against all the evidence of the Dialogues and even of the Epistles. Nor will it do to say that the bitterness of the *Gorgias* is due to the first disappointment of youthful idealism. Essentially, the criticism of the *Republic*, and even of the *Politicus*, is no less scathing.

Professor Field thinks he can find a parallel between the proposals of the *Republic* and "the tendency towards the establishment of unity within the city-state by setting up the State itself as the supreme object of loyalty, which is characteristic of the history of Athens", and he explains the insistence on unity in the *Republic* by reference to the loss of unity in Athens. But the unity of the *Republic* is the unity of an ideal state, an organism which is constructed by Plato primarily as an explanation of the unity of a well-ordered individual soul. The tripartition of the soul may have been suggested by current theories of three essential classes in the state; but the warning that this psychology is tentative and the development of the theory, as well as the repeated explanation of the main theme of the *Republic*, show that Plato's moral and social doctrines grew out of his metaphysics. On this charge his ethics and politics have been unfavorably compared with Aristotle's treatment; to me it seems another score in Plato's favor.

Because men forget that to Plato the state was not an end in itself but a means to forward the salvation of individual souls, they can say with Field that his objection to democracy was "that it fails to attain its own ideal of uniting all the citizens in appropriate service to their common city." Perhaps this is largely "a question of words and names"; but certainly Plato thought of democracy as essentially an intellectual and moral anarchy which must be as bad for a state as it is for the soul of a man.

The state of the *Republic* is an ideal state; of the implications of this Plato is aware, for he says that perhaps it exists only in heaven as a model for a man to use in shaping his own soul. In that case there is no meaning in the statement that "in the construction of ideal states the tendency is apparent to attempt to reduce to a minimum the dependence of the one state on the others." If there is only one ideal state, there can be no profit for it to find in the imperfect forms of social structure.

Professor Field, in his treatment of Plato's attitude towards contemporary politics, plausibly maintains that the political references in the Dialogues apply as well to the fourth century as to the fifth. It is impossible to reach certain proof on this matter, as he fully admits; but the case as presented is an

important part of the controversy over the historicity of the Dialogues. The exposition of fourth-century conditions is especially excellent; it is most difficult to draw distinction between the fifth century and the following one, and the origin of cosmopolitanism and of the doctrine that "the end of man was to be found not in social or political activity . . . but in some experience or state of mind which he could attain by himself" is to be placed in the fifth century instead of in the fourth. (Cf. passages on Anaxagoras, Diogenes II 7, 10 and Eudem. Ethics A4, 1215 B6 ff.)

The third section examines the Socratic literature and Plato's philosophical background and contemporaries. The remarks on Xenophon are particularly noteworthy, the distinction drawn between the *Symposium* and *Oeconomicus* on the one hand and the *Memorabilia* on the other and the objection taken to those arguments which "seek to discredit the *Memorabilia* as intentional fiction in order to establish the reliability of Plato." Professor Field notices that, if the *Memorabilia*, which claims to be historical, is purely fictitious, it is all the more likely that the Platonic dialogues, which make no such claim, depart from history.

The argument based on Lysias' remark about Aeschines, however, is weak. Because Aeschines is called "the author of many noble discourses on justice and virtue", it is said that his contemporaries seem not to have considered his dialogues as historical documents. But such a statement would be made by a litigant, anyway, if he wanted to contrast Aeschines' theory and practice, which is just the purpose of the attack by Lysias.

The chapter on the Pythagoreans is startlingly sane for a treatment of that notorious subject, and the conclusion of it is a timely warning: "As far as Pythagoreanism of the fourth century went, Plato's influence on it may well have been at least as great as its influence on him."

In addition to the short appendix on the Platonic Letters there are two appendices previously printed as articles in the *Classical Quarterly*. These review the Aristotelian account of the origin of the Theory of Ideas and the post-Aristotelian tradition of Socrates and Plato. Both are concise and intelligent accounts of the evidence we have, and Professor Field concludes that both Aristotle and the latter writers to whom credence can be given support the view that the Dialogues present Plato's own doctrines and that the Theory of Ideas was his original contribution. Perhaps the account goes too far in presuming that Aristotle's remarks must have been intended as purely historical, for there has been suspicion that he was willing to rearrange historical material to serve as an introduction to his own doctrines; but this side of the matter is later admitted in Appendix II.

In Appendix III Professor Field makes an unnecessary concession in admitting that Plutarch implies in one passage that "Plato and Socrates thought that there was a sensible and intelligible world." The passage in the *Adversus Coloten* merely says that "even before Plato and Socrates, Parmenides recognized that nature was in part the object of knowledge, in part the object of opinion." These two parts Plutarch equates with the phenomenal and intelligible worlds. He is attempting to reconcile the two parts of Parmenides' poem by an application of Platonism; and his mention of Socrates really implies nothing about the doctrines of the historical Socrates. At most the passage could be stretched to mean that Socrates distinguished between objects of opinion and knowledge.

G. M. A. GRUBE. *Plato's Thought*. London, Methuen, 1935.
Pp. xviii + 320.

This volume is a systematic account of the philosophy of Plato in eight chapters which treat in order the theory of Ideas, pleasure, Eros, the nature of the soul, the gods, art, education, and statecraft. Professor Grube's treatment is lucid and should prove to be highly serviceable, for such systematic accounts of Platonism are strangely lacking in English, although they are requisite for the student who should integrate his knowledge gained from the dialogues and therewith put to the test his interpretation of isolated dialogues and passages. Systematization, however, presents peculiar difficulties in the case of Plato; Professor Grube is aware of that, and he deserves the gratitude even of those who may disagree with many parts of his exposition for courageously facing a difficult and necessary duty of Platonic scholarship.

Within each chapter the treatment of the subject concerned follows the chronological order of the dialogues;¹ and in this

¹ Ritter's order is accepted, save that the *Protagoras* is placed after the *Gorgias*, the *Symposium* after the *Phaedo*; Grube also prefers to put the *Theaetetus* after the *Parmenides* and the *Timaeus* after the *Philebus* but does not insist upon this.

way the interpretation becomes at the same time a history of the development of Plato's theories concerning the eight subjects. In the case of education Grube finds that "Plato's exposition . . . is remarkably consistent from first to last" (p. 251); with regard to divinity "his belief in an order and a purpose in the universe is the same throughout but the meaning of his gods deepens and develops from one period of his life to the other" (p. 176); and we can see, according to this account, "the Ideas slowly emerge from the Socratic definition, . . . then blaze forth in all their glory in the dialogues of the middle period . . . (and) remain until the very end of Plato's life . . ." (p. 48). The nature of the development and its extent, in short, vary with the various subjects. Grube's explanation of the development of the Ideas is the most important example of his method of interpretation. In the *Cratylus*, he believes, we can see "the very birth of the transcendental forms," for "if he (Plato) had them all clear in his own mind it seems strange that he should not express himself more clearly to his audience" (p. 14). In view of Grube's eminently intelligent explanation of the absence of metaphysics in the early books of the *Republic*,² this argument seems hardly cogent; nor can it reasonably be urged that at the time the *Cratylus* was written Plato could not yet have developed the theory of transcendent Ideas because "their nature cannot be said to have been satisfactorily explained or even clearly expressed" (p. 15). Grube correctly explains the absence of the Ideas in the *Theaetetus*; ³ but this very explanation is applicable to the early dialogues too where, however, he takes the lack of specific mention of the Ideas as proof that they had not yet been developed. The general presupposition of this method of interpretation (cf. p. 13 where it is used to show that at the time of the *Meno* Plato had not worked out the theory of Ideas) is that when Plato propounds a problem without giving a final solution—apparently even though he hints at the solution made explicit in a later dialogue—he himself had not yet found the solution. Stenzel, who himself had theories of Platonic development, and so may have greater authority for some people than do those who adopt the attitude of Schleiermacher, Shorey, and von Arnim, rejected this naïve hypothesis with words that deserve wider publicity than they have attained: "wir können sehr wohl dem Platon die Lösung von Aufgaben bereits zutrauen, die sein Sokrates in der für diesen typischen Weise stellt und zu deren Lösung er den Weg deutlich bezeichnet, während er diese

² "He takes his reader along a good way towards his goal, converting him by the way to belief in a great many things without as yet disclosing the fundamental premises upon which these things are based" (p. 21). Cf. also p. 196, n. 1.

³ "The reason for this seems to be that the aim of the whole dialogue is to prove to the relativists . . . that on their premises knowledge is impossible" (p. 37).

selbst zweifelhaft lässt" (*Studien zur Entwicklung der platonischen Dialektik*² [1981], p. 183).⁴

In this connection it is interesting that in the account of the early development of the doctrine that virtue is a matter of knowledge (pp. 222-223) the last stage appears in a dialogue (*Euthydemus*) which according to Grube's own chronology is earlier than the dialogue that contains the first stage (*Lysis*). Similar difficulties occur in tracing the development of other topics. The tripartition of the soul in the *Republic* and *Phaedrus* is supposed to be an advance in Plato's psychology from the stage of the *Phaedo* (p. 133), but the unitary soul of the *Phaedo* reappears in the *Laws*, as Grube recognizes (p. 145); since the conventional gods, also, reappear in the *Laws*, there seems to be no reason for supposing that "in the earlier dialogues including the *Republic*" they were used differently, i. e. "as a mere mythological equivalent of the Ideas" (p. 168). On the other hand, since Grube admits (pp. 161-162) that the *Sophist*, which provides for "spiritual activity" in the "absolutely real," in fact presages the "later" rôle of the gods although it does not mention them, it is difficult to see why Plato must not have had this notion of divinity in mind from the very first.

The world of Ideas Grube represents as an hierarchy in which the Idea of Good holds the highest place and "those of widest application are most fundamental" (p. 80). This is the prevalent notion; but where in such a scheme is there room for a "Form of Evil" which Grube accepts as "not surprising at this stage"? Furthermore, the Ideas of Being, Sameness, Otherness, for example, must have applications coextensive with one another and with the Idea of Good; are these, then, all merely "phases" of one Idea, as the Good, the Beautiful, and the True are in the opinion of Robin quoted with apparent approbation by Grube? Such an interpretation converts the logical compatibility of two Ideas into ontological identity; interpreters seem not to have considered the possibility that the "intercommunion of Ideas" which Plato expressly expounds, if rightly understood as a system of implication, is incompatible with the dubious static hierarchy that has been read into some few passages.

Most of the matter for controversy, naturally, will be found in this chapter. The summary of Plato's attitude toward pleasure (pp. 84-6) is particularly felicitous, and the chapter on Eros exhibits a degree of sanity too frequently lacking in treatments of this part of Plato's thought, although here, I think, the real

⁴ See also *ibid.*, p. 108, n. 1: "Schwerlich wird er (scil. Plato) in jedem Dialoge gerade das Facit seiner jeweiligen Weisheit gezogen haben, darüber also 'noch nicht' hinausgekommen sein." P. 125: those who adopt this method forget "dass daneben Platon vielleicht dauernd noch andere Gesichtspunkte gehabt hat, als nur den, seine Philosophie in ihrem jeweiligen Entwicklungszustand vorzuführen."

depth of his practical psychology has not been plumbed. His theory of the unity of the emotions and of the possibility of directing this energy constitutes the foundation of his analysis of love and connects it with his theory of education.

The four appendices to the volume are worthy of notice. The first conclusively refutes Burnet's theory of the *Phaedo*. The second is a discussion of *Sophist* 246 A—249 D where δύναμις is taken as a "provisional definition" of τὸ ὄν (Being including σῶμα as well as the εἶδη), τὸ παντελὲς ὄν is interpreted as including both "Ideas and some kind of soul" (this Grube thinks is a change from the doctrine of the *Phaedo*), and "the friends of the Ideas" are taken to include "the author of the *Phaedo* and the *Republic*." The third is a lucid and fundamentally correct interpretation of *Politicus* 283 B—285 B; and the fourth identifies the νέμει of *Philebus* 23 C—27 C with the Ideas and τὸ μικτόν with phenomena. Incidentally, Grube is to be congratulated for opposing (p. 213, n. 1) the customary translation of τῆς τοῦ ὅλου φύσεως in *Phaedrus* 270 C. For further confirmation of the interpretation of this much labored phrase as "the nature of the whole, i. e. of the soul as a whole," cf. L. Edelstein, *R. E.*, Suppl. VI, pp. 1319-1321.

Such examples of close exegesis indicate that Professor Grube's synthesis is the result of an intimate knowledge of the problems of Platonic interpretation; if his conclusions do not always convince, his argument never fails to command respectful attention.

SOME WAR-TIME PUBLICATIONS CONCERNING PLATO.

I.

The editor of the *American Journal of Philology* has invited me to put into a single article an account of some books dealing with Plato which, though published at different times during the last seven years, have because of the turmoil and the exigencies of this period either reached the Journal only recently or failed to receive earlier notice in its pages.¹ I wish to express my gratitude for the opportunity thus given me to present a critique of a number of modern works in this field. At the same time it is only fair to warn the reader that it is not my intention and is not within my competence to give a full report or even a bibliography of all the Platonic scholarship done during the war.

Joseph Moreau's two complementary theses appeared on the eve of the war.² In the larger of these, *La Construction de*

¹ Several important books on Plato published during this period have already been reviewed in this Journal: J. B. Skemp's *The Theory of Motion in Plato's Later Dialogues* (cf. *A. J. P.*, LXV [1944], pp. 298 ff.), F. Solmsen's *Plato's Theology* (cf. *A. J. P.*, LXVI [1945], pp. 92 ff.), and R. Hackforth's *Plato's Examination of Pleasure* (cf. *A. J. P.*, LXVII [1946], pp. 378 ff.).

² Joseph Moreau, *La Construction de l'Idéalisme Platonicien* (Paris, Bovin et Cie., 1939), pp. 515; *idem*, *L'Ame du Monde de Platon aux Stoiciens* (Paris, "Les Belles Lettres," 1939), pp. 200. The former will hereafter be referred to as *La Construction*, the latter as *L'Ame du Monde*.

l'Idéalisme Platonicien, the author is concerned with the early dialogues and with the *Symposium*, *Phaedo*, and *Republic*,³ his purpose being "to seek in the teleology of the Socratic dialogues the origin and meaning of Platonic idealism" (p. 25). That this origin was reflection on the moral problems raised by Socrates and not on the conditions of mathematical knowledge is shown, he believes, by the very order of the dialogues, for the use of the dialogue-form guarantees that the exposition, even if not contemporaneous with the discovery, represents the evolution of Platonic thought as Plato himself saw it or wished others to see it,⁴ so that we have here the unique case of a doctrine the exposition of which is equivalent to an intellectual autobiography (pp. 21-9).⁵ Accordingly Moreau devotes his first three chapters, entitled "the problem of education," "technique and practice," and "practical reflection," primarily to an analysis of the *Protagoras*, *Charmides*, *Hippias Minor*, and *Gorgias*, drawing in the *Euthyphro*, *Meno*, *Laches*, and *Republic I* as supplementary to the main current of his interpretation.⁶ It is in the

³ The *Phaedo* he inclines to put later than the *Republic*, certainly later than *Republic II-IV* and *X* and in the same period as *V-VII* (p. 26). His reason, as it later appears (pp. 259, 395-6, 415-16), is his interpretation of the final argument in the *Phaedo*, in which he thinks it possible to find his own conception of idealism, as the most profound expression of Plato's psychology.

⁴ These two possibilities are quite different, though Moreau takes no account of that. It is quite possible that what Plato considered the best way of leading others to his conclusions was not the way in which he first came to them himself. The so-called "intellectual autobiography" of Socrates in the *Phaedo* would be a case in point if, as Moreau apparently believes (pp. 18-20; p. 22, n. 1), it is not meant to be historical.

⁵ This does not mean that Moreau subscribes to an "Entwicklung der platonischen Philosophie" in the usual modern sense of the phrase. He maintains that it was from the beginning "oriented towards a doctrine of finality" (p. 21); he denies that the criticism of the ideas in the *Parmenides* represents the beginning of a new orientation of Plato's thought (p. 471); and he adopts (p. 472) the interpretation of "the friends of the ideas" in *Sophist* 248 A that Ritter proposed in his *Neue Untersuchungen*. Similarly he denies any "evolution in the moral thought of Plato" from the *Protagoras* to the *Republic* (pp. 89-90).

⁶ Some of the specific conclusions of these chapters are the following. Pp. 90-92: The *Protagoras* is a pedagogical artifice by which Plato opposes to the popular conscience two notions which he does not himself

fourth chapter, however, "Finality and Hierarchy," that the meaning of Platonic idealism as Moreau conceives it first clearly emerges. Having brought the *Meno* and the *Lysis* into conjunction with the *Euthydemus* (278 E-282 E and 288 D-293 A) to show that all three seek to establish a notion of absolute good which is intelligence, all other "goods" being only ambiguous means, and having concluded that similarly to the reasoning of Kant the Socratic dialogues show that "the Good, the object of moral volition, can be defined only by the pure form of rational activity" (p. 188), he contends that in *Republic* I the value of justice or morality is established in accord with the *Euthydemus* by analogy with techniques, of which it contains the form but the form in a pure state (p. 194). Arguing then that no technique is a pure form, since each is attached to a material by which it is specifically defined, he arrives at the notion of a "hierarchy of techniques" (p. 194) and from this derives a "hierarchy of forms, each of which can be defined only by that which is immediately superior to it" (pp. 197-8). This conclusion Moreau reaches by using "form" in an ambiguous sense⁷ and by employing the Aristotelian notion of matter as the potentiality of opposites (pp. 198-200).

accept and wherein Socrates indicates where the liberation of the intelligence ends if, rejecting external norms, it is incapable of discovering any within itself. P. 108: The purpose of the *Hippias Minor* is to overthrow the ambition of a teaching that lays claim to universality but lacks knowledge of the ends to which man's activity should be directed; at the same time it shows that, if virtue is science, it is nevertheless radically different from the technical sciences or arts. Pp. 129-33: The *Charmides* opposes an inadequate interpretation of Socrates who, the dialogue suggests, meant that true wisdom consists in the knowledge of good and evil, which implies the knowledge of our rational nature. Pp. 149-50: The *Gorgias* has as its foundation an analysis of the will which establishes two fundamental propositions: 1) every act of will implies search for a supreme end to which an absolute value is given, and 2) every voluntary activity is characterized by an adaptation of means, the subordination of the parts to the whole of the work realized.

⁷It is true that a tool, e.g. a lyre or a halter, can be judged good or bad only by the one who uses it, not by the artisan who makes it; but this does not mean that the idea of the tool and the idea of the art constitute an ontological hierarchy and certainly not that one idea is less determinate, that is more material (p. 198!), than another. And where does Plato speak of "the pure form of rational activity"? Or what could this mean to him for whom reason is just the state in the soul produced by its vision of the ideas (*Republic* 508 B-D)?

This notion of a hierarchy of ideas, derived from the idea of good or rather the systematic representation of it, is an essential characteristic of the "idealism" which Moreau constructs and in the subsequent chapters, "The System of Morality," "Love," "The Ideas," "Soul," and "The Good," seeks to vindicate to Plato. Like all modern idealism it traces being back to knowledge; but, as it is not merely nominalistic, it claims to go beyond essence to existence, that is to absolute and categorical truth, which (since idealism recognizes no existence in itself) can be only a requirement of the practical reason, and this is why it makes the idea of good the principle which communicates truth and reality to essences of all kinds (p. 388). So the ideas cannot be independent realities, for that would make Plato's doctrine "naïf realism" and not "idealism" at all; they are productions of the mind, and that they draw their reality from the Good means that they have their source in pure spiritual activity determining the hierarchy of its ends (p. 464). For idealism the absolute end is not distinguished from the activity of the subject; on the level of reflection the duality of subject and object is thus abolished, but it is not the consciousness that is engulfed in the representation of an object raised to an absolute, on the contrary it is the object that vanishes in the pure transparency of a value, in the interiority of the absolute activity of mind (p. 457). Outside of this pure spirituality there is really no object. The essences draw all their reality from a hierarchical principle which expresses the transcendence of the Good, and the kinship of knower and known only translates at the level of understanding in the duality of subject and object the transcendental intimacy of pure act and value (p. 461). It suffices therefore for the soul to recover its absolute activity in order to find itself immediately in contact with the absolute essences, and this is evidently because the nature common to the soul and the idea has its principle in pure activity adequate to its own ideal and generative of every real object (p. 462). Properly speaking there is in Platonism no other absolute than that of act and value; the idea of Good, which is the expression of this, is endowed with a motive activity symbolized by the myth of love; the other ideas represent the models elaborated by the mind itself to serve as norms for its own activity, and they express

just as they determine the very life of the spirit in its autonomous progress (p. 474).

Moreau dismisses, of course, as metaphorical formulae (e. g. p. 462) the "realistic language" that Plato uses of the ideas.⁹ Going beyond this, however, he argues (pp. 302-3) that *Republic* 476 E-478 C is proof that τὸ ὄν is just ἔν, not an independent reality but the object of knowledge, since Plato could not have declared *a priori* τὸ παντελῶς ὄν παντελῶς γνωστόν (477 A 3) unless he meant simply that the perfection of knowledge is characterized by the perfect determination of its object¹⁰ and because 478 B 12-C 1 (ἀλλὰ μὴν μὴ ὄν γε οὐχ ἔν τι ἀλλὰ μηδὲν ὁρβότατ' ἂν προσαγορεύοιτο) indicates that μὴ ὄν is nothing because it is not a determinate object (ἔν τι), μηδέν being expressly the absence of unity and determination before thought.¹⁰ He contends (pp. 336-7) that in *Republic* 507 C-509 D the representation of subject and object of knowledge as distinct from each other does not imply any realism, because the subject as well as the object is there posited independently of knowledge and they become knowing subject and known object only in the light of knowledge without which intermediary the two terms have only the virtuality of their functions. The question, however, is not whether there is an *actual* object of knowledge apart from a knowing subject but whether the ideas exist apart from being known; and even in the figurative language of this passage it is in the light of the good that they have their being and knowability and not through the fact of being known by a subject any more than the visible objects are "unrealized" apart from their relation with a seeing subject.

⁹ On this question see Cherniss, *Aristotle's Criticism of Plato and the Academy* I (hereafter referred to as *Aristotle on Plato*), pp. 207-11.

¹⁰ I confess that I cannot see how the Greek could possibly mean this, but in any case it is not an *a priori* declaration. As οὐ shows (477 A 1) it is the conclusion drawn from 476 E 7-11. Moreau should have observed that *Parmenides* 132 B-C starts in the same fashion in order to draw the conclusion that thought implies as object an idea existing outside of the mind.

¹⁰ The μὴ ὄν here is *absolute* non-being, the μὴ ὄν μηδαμῇ of 477 A 3-4 *supra*; and the sentence means simply that absolute non-being would properly be called not any one thing but nothing at all, i. e., as the parallel passages, *Theaetetus* 188 E-189 B and *Sophist* 237 D-E (cf. 238 C) show, that it cannot properly even be spoken of.

As was to be expected, the doctrine of reminiscence is explained as a myth of the same kind as the creation-myth in the *Timaeus* which translates a transcendental relation by means of chronological order (pp. 367, 372); and "participation in an idea" is taken to mean "receiving from the mind a determination *a priori* and consequently mathematical" (p. 384). This last phrase, Moreau thinks, is implied in the example used in *Phaedo* 101 C (ἐν τούτοις οὐκ ἔχεις ἄλλην τινα αἰτίαν τοῦ δύο γενέσθαι ἀλλ' ἢ τὴν τῆς δυάδος μετάσχεσιν), an interpretation which is very strange in view of the immediately preceding μετασχὼν τῆς ιδίας οὐσίας ἐκάστου οὗ δὲν μετάσχει. It is no stranger, however, than the conclusion previously drawn (p. 309) from *Phaedo* 102 B ff., that only the comparatives "greater" and "smaller" which express a relation denote an essence; in this very passage it is said that a person is larger or smaller than another because he participates in the ideas "largeness" and "smallness," which ought to imply that "larger" and "smaller" are *not* ideas (*Phaedo* 102 C 1-9 and 100 E 5-6; cf. Campbell on *Politicus* 283 D and Plotinus, *Enn.*, VI, 1, 8). Nevertheless, Moreau declares that all Platonic ideas are pure relations (pp. 312, 471-2) and then that every idea is in essence number, since numbers constitute proportions or systems defining the absolute essence of a form (pp. 322-5, 347-51).

The soul should then be "a system of mathematical essences conditioning the harmonies of celestial phenomena and of human conduct." Assuming (p. 366) that this has been made out for the world-soul by Robin's mathematical construction,¹¹ Moreau explains away Socrates' refutation of the harmony-theory in the *Phaedo* by saying that it means that soul cannot be the resultant of organic life, because soul is the knowing subject without the activity of which there would be no object of knowledge and consequently no body (p. 372). Socrates opposes then, according to Moreau, only the materialistic doctrine that soul is a harmony of physical elements and not the notion that it is a harmony in another (i. e. idealistic) sense (p. 373). The final argument of the *Phaedo* is interpreted to mean that the idea of

¹¹ The reference in *De Anima* 429 A 27-29 to soul as *réves élēs*, on which Moreau seizes, does not refer to Plato's doctrine at all (cf. *Aristotle on Plato*, p. 565); Robin's interpretation of the psychogonia is otherwise erroneous also (cf. *Aristotle on Plato*, notes 339 and 366).

life is the system of organization, the activity of which is represented by soul (p. 402) and that "it is the harmony of the Whole that requires the perpetuity of individual souls" or in other words it is the Idea of Good "which guarantees their imperishable existence" (p. 406).

By this time Moreau is using "the One" as a synonym for "the Good" (p. 407).¹² He goes on to identify the truth which is the object of *φρόνησις* in the *Phaedo* with the idea of Beauty in the *Symposium* and this with the idea of Good in the *Republic* (p. 543); and the idea of Good is in the end the idea of the Whole, the autonomous system of relations, the hierarchy of forms, the representation in which the mind determines itself for itself and objectifies its own pure activity (p. 473). This is the *παντελὴς ὅν* of *Sophist* 248 E and *Republic* 477 A and the *παντελὴς ζῆον* of *Timaeus* 81 B, which are, of course, supposed to be the same "idea of the Whole" though in different aspects. Now, each of these many identifications has been suggested many times in the past, and each has been so often refuted that it would be useless to repeat here these refutations point by point.¹³ The modern idealist who desires to read his system into the text of Plato would in any case remain unconvinced; and the unsophisticated philologist who protests that Plato's Greek does not support Moreau's "construction" and often flatly contradicts it will cite texts to no avail against the argument that "only by this resolutely idealistic interpretation do the arguments of the dialogue escape the reproach of puerility" (p. 416).

Philologist or philosopher, however, may wonder how Moreau avoids *Parmenides* 132 B-C which appears to reject "conceptualism" of all kinds. He does not answer the question in his

¹² He refers here to §§ 273-4. If one turns back to these sections, one finds not the expressed identification but two propositions of which it is apparently the unexpressed conclusion. These are: 1) Every idea is a number, being a pure relation, and 2) They possess reality because they answer to an absolutely undeniable obligation, the total unification of activity, because they have for their principle the Good. Presumably then the Good is the One because it is the principle of the ideas, which are numbers!

¹³ On the *παντελὴς ὅν* of the *Sophist* cf. *Aristotle on Plato*, pp. 437-9 and 606-7; on the *παντελὴς ζῆον* of the *Timaeus* see the reference in note 16 *infra*; on the identification of the ideas of Goodness, Unity, and Being cf. Cherniss, *The Riddle of the Early Academy*, pp. 56-8.

larger book; but in *L'Âme du Monde* (p. 36, n. 5; cf. p. 48) he asserts that νόημα in this passage of the *Parmenides* means "a contingent and particular mode of thought" and that the dilemma there presented is to be avoided by recognizing that each idea has reality only in its connection with the total system of the ideas, that is as object of absolute thought. In short, every idea has existence only in the total system which cannot be separated from the thought of god. Moreau offers no argument, however, for limiting as he does the sense of the passage, which in the first place puts its argument quite generally (νόημα . . . ἐν ψυχαῖς) and does not restrict it to human minds, in the second place expressly concludes that any "thought" implies an object distinct from the act of thinking, and finally presents as the crowning absurdity of conceptualism the fact that it implies "idealism" of one sort or another. Furthermore, whatever Plato's motive may have been for presenting this refutation of conceptualism,¹⁴ there is no text of his which indicates that he for his part meant the ideas to be products of mind in any sense more subtle or profound than that which the young Socrates here proposes and abandons. Finally, Socrates here speaks of the ideas existing ἐν τῇ φύσει as an alternative to his proposal that they exist οὐδαμοῦ ἄλλοθι ἢ ἐν ψυχαῖς (cf. 132 D 1-2 and 132 B 4-5); and this should imply at least that Plato when he refers to them elsewhere as existing ἐν τῇ φύσει (cf. *Phaedo* 103 B, *Republic* 598 A) does not mean that they are "determinations of practical reflection that human art fragmentarily realizes" (*La Construction*, p. 478).

To Moreau, however, *Republic* 597 B-D appears to be in perfect accord with his interpretation. There God is called the φνουργός of the ideal bed, the bed existing ἐν τῇ φύσει; and Moreau, taking this isolated passage as serious Platonic doctrine,¹⁵ interprets it

¹⁴ From Alexander, *Metaph.*, pp. 92, 18-28 and 103, 1-4 as well as Aristotle, *De Anima* 429 A 27-29 (see note 11 *supra*) it appears that persons other than Plato did identify the ideas with νοήματα; and the passage in the *Parmenides* may well be directed against them.

Moreau does not mention the *Seventh Epistle* attributed to Plato; but he would probably reject it as spurious, since there at 342 C 4-7 it is said that ἐπιστήμη, νοῦς, and ἀληθὴς δόξα being ἐν ψυχαῖς are obviously different from the ideas.

¹⁵ That Aristotle did not make use of the passage in his polemics against the doctrine of ideas is itself evidence that it was not considered

to mean that God "determines the model ideally by his transcendent reflection," this ideal genesis, as distinguished from the demiurgic action, being represented in the *Timaeus* by the calculations attributed to the Demiurge (*La Construction*, p. 850, n. 1 and pp. 477-8).

Moreau's systematic treatment of the *Timaeus* constitutes the first chapter of his complementary thesis, *L'Âme du Monde* (see note 2 *supra*). He takes the generation of the universe as mythical, in which he is justified by Plato's own indications; but his interpretation of the object of this account, what he calls the organization of the whole, rests ultimately upon the mistaken assumption, an assumption which he makes no attempt to substantiate, that the "model" of *Timaeus* 31 A-B is "the idea of the Whole" (p. 7) which he straightway identifies with "the One" and "the Good" and a totality of the hierarchy of forms subordinated to the supreme form of the Good (p. 8). From this he concludes that "all the transcendental metaphysics of the *Timaeus* flows from the original decision to think the datum as a whole" (p. 9) and later (p. 35) that "the idea of the Whole . . . furnishes the principle of an ontological argument which gives its justification and meaning to the artificialism of the *Timaeus*." It is really because the Universe is by definition a Whole, he says (p. 36), that it must be endowed with organization and thought and must be the work of a benevolent and calculating activity. He admits that this is the reverse of the course of reasoning in *Timaeus* 29 E-30 D; that, he explains, is because the ontological argument is concealed by the demiurgic mythology. Well and good; but that will not explain why Plato makes no mention in all this passage of an "idea of the Whole" or "the One" or "the idea of Good" or "the total hierarchy of ideas" but on the contrary says clearly that the "model" is

to be a serious expression of Plato's theory (cf. *Aristotle on Plato*, p. 609). J. Tate (*Class. Rev.*, LX [1946], p. 33) insists that "this plain, non-mythical passage is worth innumerable speculations based on rhetorical and ambiguous remarks from the *Timaeus* and *Phaedrus*"; but his reason seems to be his conviction that God must be supreme in any really philosophical system. My reasons for believing that the passage was not meant as a serious expression of the theory of ideas are given in *A. J. P.*, LIII (1932), pp. 233-42; cf. also to the same effect Frutiger, *Les Mythes de Platon*, pp. 105-6.

just the general "idea of living being" and later (39 E-40 A) lists the four sub-generic ideas which this includes, whereby it becomes indisputable that the model ζῶον is expressly *not* inclusive even of all the ideas later mentioned in the dialogue.¹⁶

Moreau, however, assuming that this model is "the idea of the Whole" gets into it by means of his ontological argument "the idea of perfect intelligence in actuality" and the necessary implication of its own realization; and this "idealistic" reasoning leads him on to the discovery that this "absolute living being" includes "three aspects of the divine: first, the Intelligible or the Word, i. e. the absolute revealing itself in us, apprehended by reflection as the condition and ideal of knowledge; then the Intelligence, the Cause or Father whom we reach by ontological argument; finally the third aspect proceeding from the first two, the Will, the Soul, or the Goodness of God" (p. 39).¹⁷ All this is derived from "the principles of Platonic ontology" (cf. p. 43), principles which follow only from the assumption that Plato must be an "idealist" and not from an unprejudiced consideration of his words. It is only from these principles that Moreau can interpret the psychogony as "a purely ideal construction," i. e. as the objective expression of the absolute Intelligence determining by its reflection the ideal model, which

¹⁶ On the *παρελθὲς ζῶον* cf. *Aristotle on Plato*, pp. 575-8 and the references to Cornford and Shorey on p. 577. Moreau in § 3, note 7 (pp. 7-8) is mistaken in saying that the reasoning of *Timaeus* 31 A has its echo in Aristotle's *De Caelo* 278 B 4-8; that argument of Aristotle's proceeds from the assumption that the universe contains all the matter there is and is an adaptation of *Timaeus* 32 C-33 A. Moreau is also mistaken, however, in trying to differentiate *Timaeus* 31 A and *Republic* 597 C on the ground that the argument of the former turns upon an essential property of the whole in virtue of which there can be only one whole even in *concreto*, for not only is there no mention of a "whole" in the passage but Plato gives a specific reason for the uniqueness of the physical universe and this is not even the argument that there *can* be only one because the model is unique (cf. Cornford, *Plato's Cosmology*, p. 43; *Aristotle on Plato*, note 347). The reason for the use of μέγας in *Timaeus* 31 A 6, which has so much impressed Moreau, is simply ὅτι ζῶον καὶ ἐν καὶ κατὰ γένη μέγιστον (30 C 6).

¹⁷ Moreau assumes without discussion (p. 81) that *Timaeus* 92 C declares the world to be an image of the intelligible God, although it has been shown with certainty, I think, that the sentence does not have this meaning (cf. e. g. Cornford, *Plato's Cosmology*, p. 359, n. 1).

he then identifies with the activity of the *φύρουργός* of *Republic* X (pp. 43-5; see note 15 *supra*).¹⁸ *Timaeus* 35 A 1-B 3 properly construed (cf. Grube, *Class. Phil.*, XXVII [1932], pp. 80-82; Cornford, *Plato's Cosmology*, pp. 59-61) makes it impossible to identify the World-Soul with the ideas or the "model," just as *Timaeus* 52 A-D makes it impossible to say that the receptacle is the physical expression of non-being which on the plane of the intelligible Plato calls the "other" (pp. 26-30; cf. *La Construction*, pp. 442-3). Neither the intermediacy of soul nor the reality of *χώρα* independent of the ideas is compatible with idealism and the ontological argument, and so Moreau must explain them away in the face of Plato's straightforward assertions.

The second chapter of *L'Ame du Monde* is concerned with the "physico-theology" of the *Laws*. Although Moreau admits that the doctrine of ideas and the dialectic are not abandoned in the *Laws* and even professes to see in 898 A-B, though concealed, the foundation of the ontological argument (pp. 74-5, 81, 86-7), still not even he can find in the argument of the tenth book "the idea of the One-Whole" or "the dialectical deduction of reality from a self-sufficient idea, an absolute, the idea of Good" (pp. 67 and 81).¹⁹ This falling-off from the ontological reflection which he had read into the *Timaeus* he explains not only by the popular character of the discussion in the *Laws* but also by Plato's desire to call positivistic science to testify in favor of the religious spirit (pp. 71-72). The

¹⁸ Moreau cites (p. 45, n. 8) *Sophist* 265 E in support of his statement that "nature is a divine art . . . which in its perfection excludes the properly demiurgic factor with the transcendence of model to worker." Yet the products of the divine art are listed in *Sophist* 266 B-C; and they are not the ideas but 1) phenomenal objects, living and inanimate, and 2) dreams, shadows, and images, i. e. the natural objects of the two lower sections of the "divided line."

¹⁹ On p. 81 occurs the statement: "la totalité du Monde y (*soit* in the *Laws*) est identifiée au Dieu suprême (*τὸν μέγιστον θεὸν καὶ ὅλον τὸν κόσμον* VII 821 A)." The sentence from which these accusatives are taken not only does not identify god and the world but it expresses not Plato's opinion but a popular attitude which the speaker proceeds to combat (cf. England *ad loc.* and Mayor, *Ciceronis De Natura Deorum*, I, p. 118 on I, xii, 30). The cream of the jest is that Harward (*The Epinomis of Plato*, p. 116 on 977 B 2) quotes just this phrase from the *Laws* as a parallel to the identification of *σάραξ* and god in the *Epinomis*.

absence of the theory of "the One-Good" and of the ontological argument from the *Laws* might well have caused Moreau to question whether he had rightly seen them in the *Timaeus*; ²⁰ but on the contrary he asserts that Plato reserved this fundamental part of his doctrine for esoteric use and in so doing opened the way for those of his successors who for want of philosophic vigor rejected it (p. 84). One would have thought, then, that those who knew this esoteric doctrine would have been the last to be misled by the "popular apologetics" of the *Laws*; yet according to Moreau it was Plato's accommodation of his true doctrine to the practical purposes of the arguments in this writing that opened the way to those who were to reject the world of ideas, confuse astronomy with theology, and fall into a confused immanentism in which the distinction of mind and matter is abolished.

This rupture with the intelligible in the Academy Moreau finds completed in the *Epinomis* (p. 84), where the confusion of the sensible universe and the intelligible marks the end of idealism; and the repetition of some formulae that recall those of Plato concerning dialectic is only one example of the "manifest parrotry" of the dialogue (pp. 92-3). While Moreau's observations of difference between the attitude in the *Epinomis* and in the admittedly genuine dialogues of Plato are frequently correct, his case for athetizing the *Epinomis* is weakened by the fact that it is made to depend upon his interpretation of the nature of Plato's "idealism." It is unfortunate that he apparently did not know the study of Dr. Benedict Einarson, "Aristotle's Protrepticus and the Structure of the *Epinomis*" (*T. A. P. A.*, LXVII [1936], pp. 261-85), which would not only have provided him with more formal arguments for the spuriousness of the dialogue but would also have presented him with the strong probability of its dependence from Aristotle.

To Aristotle in his "pre-Aristotelian period," represented by the *De Philosophia*, the *De Caelo*, and parts of the biological writings, Moreau ascribes (pp. 114-45) a "biological dynamism" or "cosmobiology," a kind of "Stoicism before the Stoics." During this period, he contends, Aristotle made the fifth essence

²⁰ Especially so, since the exposition in the *Laws* corresponds so closely with the concise argument of the *Phaedrus* (cf. J. Stenzel, *Ueber zwei Begriffe der platonischen Mystik*, pp. 14-15 and p. 16, n. 1).

the substance of soul and the first heaven, which is this substance in its purest state, the immanent principle of movement and as it were the soul of the universe, thus installing as the Absolute the sensible universe instead of the intelligible. This whole construction depends upon the highly questionable, though presently fashionable, thesis that the notion of an unmoved mover is later than the *De Caelo* and upon a misinterpretation of *De Gen. Animal.* 736 B 29-737 A 12.²¹ Nevertheless, as evidence for the diffusion of this pre-Stoic, post-Platonic cosmobiology which, progressively repressed in classical Aristotelianism, was maintained, he believes, by other authors who guarantee the transition between the Old Academy and Stoicism Moreau adduces (pp. 145-157) the pseudo-Philolaic fragment *περὶ ψυχῆς* and the extract of Alexander Polyhistor preserved by Diogenes Laertius (VIII, 24-33). He scarcely succeeds even to his own satisfaction, however, in proving that the latter is pre-Stoic; and his treatment of the former certainly falls far short of his claim that it must belong to the same period as the *De Caelo* (p. 149).²²

²¹ Aristotle does not there say that the constitutive nature of the soul is an analogue of the element that constitutes the stars (Moreau, *L'Âme du Monde*, p. 139) but that the analogue of that element is the immediate vehicle of the soul, this vehicle in turn being contained in the *pneuma* which is itself contained in the sperm (observe also that *ῥῶν ψυχῆς δύναμις*, 736 B 29-30, does not mean "toute âme en tant que puissance" but "the faculty of every soul"). This question as well as Moreau's contention concerning the unmoved mover and the interpretation of the pertinent fragments of the *De Philosophia* I have discussed in *Aristotle on Plato*, pp. 584-602.

²² Moreau argues (pp. 152-3) that *De Caelo* 293 B 4-15 shows that Pythagorizers contemporary with Aristotle tried to establish a strict parallelism between the structure of the universe and that of an animal. It does, in fact, just the opposite, for Aristotle contends that his opponents understand "centre" in an unambiguous geometrical sense whereas there is also as in animals another vital centre which does not coincide with this. The passage of Simplicius (*De Caelo*, p. 512, 10-12), cited by Moreau, is shown by Simplicius' own words to refer to a later "Pythagoreanism" unknown to Aristotle and Simplicius' source for which was probably Iamblichus (cf. *Aristotle on Plato*, p. 562).

Moreau's translation of *ἐξ ἀρχῆς* in the pseudo-Philolaus fragment (Diels-Kranz, I, p. 417, 14) as "poste de commandement" (p. 148) is certainly wrong, and his later interpretation of this as "the central fire" (p. 153) is quite without substantiation. The phrase itself is

The thesis to which this leads and which is developed in the fourth chapter of *L'Âme du Monde* is that Stoic physics is neither an innovation nor a deliberate return to the ancient physical philosophers but a cosmobiology made inevitable by lack of dialectical reflection on the soul and closely connected with the conceptions which immediately preceded it. Moreau's scheme for the development of Stoicism is expressed in the somewhat paradoxical statement that starting from premises borrowed from a dualistic dialectic it culminates by way of a physiological materialism in a spiritualistic monism that lacks only a critical consciousness of the spirit (p. 173). The Stoics, he believes, maintained in the theory of the World-Soul the essential affirmations of Plato's rationalistic teleology but detached from their dialectical justification and supported only by biological analogy. There is reason in Moreau's protests against the extravagant modern attempts to derive Stoicism from oriental sources and in his view of it rather as a stage in the development of Greek thought; but on the other hand, even apart from his notion of Platonic "idealism" which casts its shadow over all of his interpretations, one may demur at his tendency to represent Stoicism as a simple unit in this development and the development itself as a single current without eddies and storms, debates and cross-influences.

P. Brommer in his book,²² which appeared a year after Moreau's theses, rejects out of hand the idealistic interpretation, which for him is represented chiefly by Natorp's version, and asserts that the key to Plato's thought is to be found in the distinction of meaning of the two terms, *εἶδος* and *ἰδέα*. The latter is in origin the Socratic—and so primarily moral— notion

probably an error; but in any case *περιαγόμενος* is not to be taken with it and separated from *φύσει διαπνεόμενος*, as Moreau does (p. 147) in order to get the doctrine of *πνεῦμα* from the first half and a *ἡγεμονικόν* of the universe from the second; *φύσει διαπνεόμενος καὶ περιαγόμενος* means simply "pervaded and made to rotate by nature"; and *ἐξ ἀρχιδίου* or whatever it stands for is the complement of the main clause of the sentence.

²² P. Brommer, *ΕΙΔΟΣ et ΙΔΕΑ, Étude Sémantique et Chronologique des Oeuvres de Platon* (*Philosophia Critica*, Deel I [Assen, Van Gorcum & Comp. N. V., 1940]).

which is supposed to arise spontaneously in the soul as soon as the maieutic art has eliminated all that prevents its birth; the former Plato got from Pythagorean geometry, and it he conceived to be the real structure which accounts for the formal aspect of existence and accords perfectly with the image that we have of it in the soul. The combination of the Socratic *idea* and the Pythagorean *eidos* was a hybrid union, for the former was essentially dynamic while the latter was static; and it was this static *eidos* that brought in its train all the difficulties involved in participation. Plato, though fascinated at first by the logical appearance of this static *eidos*, is always brought back to the dynamistic conception of the *idea* which seems better to account for reality. The *eidos*, then, from the time of the *Meno* onward is "real structure," the essence of which exists outside of our minds and our concrete existence and of which our souls have simply had knowledge. "*Idea*," however, has not one meaning for Brommer but two: it is on the one hand "the primary image which is the source of reality" (i. e. of realized structure) and on the other "the concomitant image which represents in the soul the structure of the real" (p. 68).

From this one gathers that for Brommer *ἰδέα* is finally 1) a transcendent and separate entity and 2) the notion in the soul, while *εἶδος* is 3) the immanent structure caused by *ἰδέα* in the former sense and to which *ἰδέα* in the latter sense exactly corresponds;²⁴ but in the end he states that the *eidos* is immanent or separate depending upon our point of view because "in its very immanence it is separate and it is immanent by reason of its separation" (p. 266), while the *ἰδέα* which is real and which engenders the *eidos* in the physical world and its *idea* in our minds (p. 267) turns out to be the content, product, or manifestation of a Mind with which in one way or another the Idea of Good is identified.²⁵ Is this not to make the ideas in effect

²⁴ "Elle (*scil.* l'Idée) est certainement l'image primaire qui préside à la réalisation d'une Structure; mais d'autre part elle reste identique à elle-même comme contenu de Nous, et doit par conséquent, nécessairement, coïncider avec l'image idéale qu'on fait correspondre à telle structure, dans l'Esprit ou dans l'Âme (p. 68).

²⁵ "Every Form and every Measure supposes a . . . creative Cause which is precisely the Idea of Good. This . . . is a rational and reasoned power which must have its location in a Spirit from which it

the thoughts of God? And, since Brommer says further (p. 268) that the *ἰδέα* that we have in ourselves must be identical with that which encloses the *εἶδος* and consequently our *νοῦς* must be identical with the creative *Νοῦς* and our soul directly related to the Principle of which the essential function is to be the Idea of all Reality, surely the idealists would be justified in asserting that of their interpretation he has rejected only the name and has adopted as his own the essential meaning.²⁰

There is a similar reversal and confusion in Brommer's analysis of Plato's "dynamism," of which he takes *Sophist* 247 E to be a "frank confession" (pp. 128-9). Although he tries to establish the "dynamic" character of the *eidos* throughout the whole of Plato's work, pressing every appearance of

emanates spontaneously as its specific manifestation" (p. 73); cf. p. 71 ("the creative Image which has its seat in the divine Mind"), p. 89 (. . . "God who alone has the power to form the real as he informs himself: the Idea of Good engendering the good"), p. 252 ("What is more natural than to identify the *Νοῦς* and the Idea of Good, it being understood that *Νοῦς* is the 'place' of the Idea"), p. 274 ("God is the measure of everything; by reason of the *Eidos* of Good which is his Being, the divine Idea is the Standard . . .").

²⁰ *Phaedrus* 247 D Brommer interprets as follows (pp. 100-101): "The gods rejoice in the comprehension of the One which is as the summit of the celestial vault; but its full intelligence carries them outside, where above Being (*ἔξω τοῦ οὐρανοῦ*) Reality in all its immaculate purity is enthroned. This supra-celestial place . . . is at once the ineffable domain where in the divine Mind are drawn up the creative images which will engender Justice and all the moral values . . . but it is also the serene region in ourselves where we have Intuition in its purest actuality . . ." Brommer then immediately protests that these two "regions" are not one and the same, for, if they were, "the Real would be reduced to a subjective Ideal." He should not have read into this passage then that of which it contains no hint, with the result that he has to ascribe to Plato confused subtleties for which there is no support in his words to save him from a danger to which he never exposed himself but to which in the end Brommer himself succumbs. There is in *Phaedrus* 247 no mention of "the One"; the supra-celestial region is not "above Being," for Plato says *ἡ . . . οὐσία δὲναι οὐσα . . . τοῦτον ἔχει τὸν τόπον* and what is seen there is *τὸ δὲ*; all the ideas are there (*τὰλλα ὡσαύτως τὰ δὲναι δὲναι*), and the figures and the language all imply that they are not in a divine mind or in anything else. Certainly there is no suggestion that this supra-celestial region symbolizes "the region of intuition in us."

δύναμις and its cognates into evidence for this conclusion,²⁷ he is constrained to admit in the end that "dynamism" in the sense of efficient causality or cause of all movement is assigned by Plato to the soul; but he seeks to compromise this admission by insisting that the *eidos* ultimately is not static in its original sense but has a "static dynamism" and then that the *Being of the Eidos* has also a character of spirituality which raises it above every formal and dynamic function (pp. 269-72).

Brommer's insistence upon finding in *εἶδος* and *ἰδέα* the distinctive technical meanings that he has assigned them *ex hypothesi* is responsible for most of his difficulties of philosophical interpretation and for the distortions and mistranslations of the Greek which alone would be sufficient to disprove his thesis. Instead of attempting so much as to list even the more flagrant of his mistakes, I shall here examine a few crucial passages which should show whether or not Plato when he used *εἶδος* and *ἰδέα* in a technical sense gave them the distinctive meanings which Brommer maintains that he did or, if not these, any distinction of meaning at all.

In *Republic* 596-597 Brommer (p. 89) says that *εἶδος* and *ἰδέα* are not used indifferently but that Plato means that the true *ἰδέα* such as the perfect artisan contemplates in his soul is not fashioned but is in direct relation with the essential structure which alone constitutes the real in all similar objects and which structure is the creation of God who alone has the power to form the real just as he informs himself. Now at the beginning of this passage Socrates says (596 A 6-7) *εἶδος γάρ ποῦ τι ἐν ἑκάστων εἰώθαμεν τίθεσθαι περὶ ἑκάστα τὰ πολλά, οἷς ταῦτόν οὐνομα*

²⁷ E. g. on p. 55 he states that the *eidos* is "une force, une puissance qui est même qualifiée de 'divine'," referring for this to *Phaedo* 99 C which has nothing to do with the *eidos*; on p. 28 he finds the dynamic nature of structure in *Hipp. Maj.* 296 D, translating by "la puissance vers le bien" Socrates' dialectical definition τὸ δυνατόν ἐπὶ τὸ ἀγαθόν τι ποιῆσαι; and on p. 26 he professes to see in τὸ διὰ πάντων πεφυκός of *Laches* 192 C, which he translates "la nature qui pénètre toutes les formes particulières," the dynamic concept of "real power."

With regard to the passage of the *Sophist* Brommer does not mention 247 E 7-248 A 2, which shows that Plato did not consider δύναμις a final definition or even characteristic of reality, or 249 D 6-251 A 4, which states that nothing hitherto said is the answer to the question, "What is reality?"

ἐπιφέρωμεν. In 596 B 3 in doing this for chairs and couches he says that there is one *ιδέα* for each of these classes. In 596 B 7 he says that the craftsman makes the couches we use by looking to the *ιδέα* and in 596 B 9-10 that none of the craftsmen makes the *ιδέα* itself. In 597 A 1-2 he asks: "Did you not just now say that the couch-maker does not make the *εἶδος* δὲ δὴ φάμεν εἶναι δὲ ἔστι κλίνη," and to this the answer is "Yes, I did." Later he calls this δὲ ἔστιν κλίνη (cf. 597 C 3) ἡ ἐν τῇ φύσει οὖσα κλίνη (597 B 5-6, C 2). In short Plato here *says* that what he has called ἡ *ιδέα* is what he also calls τὸ *εἶδος* and that both or either can be called δὲ ἔστιν and τὸ ἐν τῇ φύσει. None of Brommer's subtleties can circumvent this passage; but there is worse behind. In 596 A 6-7, quoted above, *εἶδος* τι ἐν ἑκάστων τίθεσθαι κτλ. is called "the customary method." In 507 B 5-10 Socrates had said καὶ αὐτὸ δὴ καλὸν καὶ αὐτὸ ἀγαθόν, καὶ οὕτω περὶ πάντων ἃ τότε ὡς πολλὰ ἐτίθεμεν πάλιν αὖ κατ' (οἱ καὶ, cf. Adam, *ad loc.*) *ιδέαν* μίαν ἑκάστων ὡς μᾶς οὔσης τιθέντες, "δὲ ἔστιν" ἑκάστων προσαγορεύομεν (cf. τὰς *ιδέας* in the next sentence, B 9-10). This is "the customary method" referred to in 596 A 6-7, and in one expression of it *ιδέα* is used exactly where *εἶδος* is in the other. The verbal similarity shows beyond the possibility of cavil that Plato *did* use *εἶδος* and *ιδέα* indifferently and by both or either meant just δὲ ἔστιν ἑκάστων or that which later became the standard term for a Platonic idea, αὐτό prefixed to any common noun or neuter adjective.

In the same way *εἶδος* in *Phaedrus* 249 B 7 must mean exactly the same thing as *ιδέαν* in *Phaedrus* 265 D 3. This correspondence Brommer finds no way to eliminate and is reduced (pp. 101-2) to explaining *εἶδος* in the former passage as a purposeful etymological pun on *εἶδεν* in the next sentence (249 C 2); but this is incredible, for in the *preceding* sentence and nearer to *εἶδος* than this *εἶδεν* appears in the same sense *ἰδοῦσα* (249 B 6), so that, if Plato's choice of a term was to be determined by etymological considerations, *ιδέα* would more probably have been used than *εἶδος*.²⁸ In any case, if the choice between *εἶδος* and

²⁸ It is amusing to notice that when on p. 145 Brommer tries to read into *Politicus* 292 a reference to the ideas he says: "In view of Plato's inclination toward etymology it is not improbable that the term *ἰδεῖν* (292 D 5) contains an allusion to the *εἶδος* or better to the *ιδέα* that is to be tracked down." Incidentally Brommer takes with deadly seriousness the etymologies of the *Cratylus*, as if they were really meant to

ἰδέα could have been determined by the desire for an etymological pun, the distinction between the two cannot have had any real importance for Plato's thought.

Perhaps the best example of the reasoning by means of which Brommer tries to extricate himself from difficulties into which his own thesis has thrown him is his explanation of *Republic* 518 C, 526 E, and 532 C, in all of which Being appears to be ascribed to *τὸ ἀγαθόν*, although in 509 B the idea of good had been said to surpass Being in majesty and power. Brommer decides (pp. 79-80) that in these three passages there is no question of the *idea* of good but of the good simply and that the good as *eidos* is Being in its plenitude. In other words, he maintains that these three passages, since they say *τὸ ἀγαθόν* and not ἡ *ἰδέα τοῦ ἀγαθοῦ* must mean *ἀγαθόν* as *eidos* which is something different. In 526 E 1, however, the whole phrase *τὴν τοῦ ἀγαθοῦ ἰδέαν* does occur, and *τὸ εὐδαιμονίστατον τοῦ ὄντος* two lines later must refer to this. This Brommer tries to avoid by referring to "the confusion or rather the assimilation of the creative image of the Good which is before all Being to the inspiring image as we conceive it in the soul"; and anyway "the parallel with 518 C indicates that the object of immediate research is the *ἀγαθόν* as it is expressly called in that passage." Let that pass; but what of 509 B itself where supposedly it is said that the *idea* of good surpasses Being? There is no *ἰδέα* mentioned there but only *τοῦ ἀγαθοῦ* expressly in this form and twice (509 B 7 and 8-9). Either we accept the rigid formalism of Brommer and try to maintain that it is not the *idea* of good that surpasses Being even in the famous and unique passage of 509 B or we have to admit—what is obviously true—that *τὸ ἀγαθόν* "tout court," like *αὐτὸ τὸ ἀγαθόν* (540 A 8-9), is used by Plato to mean ἡ *ἰδέα τοῦ ἀγαθοῦ*, that *ὃ ἕστιν ἕκαστον* is ἡ *ἰδέα*, that in short there is no difference between *ἰδέα* and *eidos*.²⁹

express tendencies of Plato's philosophy; *Cratylus* 406 C 1-3 was lost on him. The fantasies of the *Cratylus* are not sufficient for him; and he sees "etymologies" everywhere, reaching the height—or depth—in his statement (p. 124) that the *ἄπορος τόπος* into which the sophist has dived (*Sophist* 239 C) is a deliberate reference at once to the *τόπος* of the *Timaeus* (by which, I suppose, he means *χώρα*) and the *ἄπορος* of the *Philebus*!

²⁹ Brommer (p. 68) assumes that in *Republic* 479 A (mistakenly referred to by him as 479 D) a distinction is made between "le Beau

Finally Brommer is quite mistaken in arguing (p. 257) from *Eth. Nic.* 1096 B 13-26 that Aristotle's usage proves the distinction between εἶδος and ἰδέα to be genuinely Platonic. Without introducing the extra complication of Aristotle's use of εἶδος in his own system and to take but two examples for many, a comparison of *Metaphysics* 1078 B 9-10 (τὴν κατὰ τὴν ἰδέαν δόξαν) with B 12-13 (ἡ περὶ τῶν εἰδῶν δόξα) or of 1078 B 33 (ἰδέας) with 1079 A 1 (εἶδη) will prove that Aristotle was unaware of any Platonic distinction between the two terms.

Brommer's semantic and historical study must be said to have failed to prove either that Plato made any technical distinction between εἶδος and ἰδέα or that his employment of them shows any kind of change or development throughout the course of the dialogues. Moreover, Plato used both terms without technical significance for the ideas much more often than is admitted by Brommer²⁰ and in many important passages concerning the ideas used neither (e.g. *Symposium* 210 E-212 A, *Phaedrus* 247 C-E, *Philebus* 58 A, 59 C, 61 E), a fact which of itself should make one hesitate to ascribe to these two words

en soi" and "l'Idée de la Beauté," the former being εἶδος to which the latter is anterior. The passage runs: . . . ἀποκρινέσθω δὲ χρηστὸς δι' αὐτὸ μὲν καλὸν καὶ ἰδέαν τινὰ αὐτοῦ κάλλους μηδεμίαν ἡγεῖται δεῖ μὲν κατὰ ταῦτά θεαύτως ἔχουσιν πολλὰ δὲ τὰ καλὰ νομίζει. The αὐτὸ καλὸν and ἰδέαν . . . κάλλους are not two things but one and the καὶ is explicative, as the position of μὲν reinforced by its repetition after δεῖ and answered by the δὲ after πολλὰ shows. The αὐτὸ καλὸν is one of the αὐτὰ ἕκαστα καὶ δεῖ κατὰ ταῦτά θεαύτως ὄντα (479 E 7-8, cf. 480 A 3-4) and these are the ἰδέαι.

²⁰ Some examples of the extreme cases in which Brommer forces the technical sense upon these terms are φρονήσεως τὸ σμικρότατον εἶδος (*Laos* 689 D), ἐν μέρει εἶδει (*Timaeus* 30 C), ἀγαθοῦ ἰδέα οὐσα (*Cratylus* 418 E), ἡ τοῦ νομίσματος ἰδέα (*Politicus* 289 B), τὸ ἐπ' εἶδει καλὸν (*Symposium* 210 B), βίου εἶδος (*Philebus* 35 D). When in *Philebus* 23 C 12 εἶδος is used of ἀπειρον (as well as πέρας), he says in his embarrassment (p. 183) that "in a slightly paradoxical fashion Plato applies the denomination of structure to the absence of structure." He says nothing of τὴν τοῦ ἀπείρου ἰδέαν in *Philebus* 16 D 7. In none of these cases does εἶδος or ἰδέα mean "idea" or "structure" in any sense. It is far more disastrous, however, when Brommer (pp. 193-5) gives his technical sense to τρίτον οὐσίας εἶδος in *Timaeus* 35 A and then through misconstruction of the passage, misconstruction which is no longer excusable after Grube's clarification (*Class. Phil.*, XXVII [1932], pp. 80-82; cf. Cornford, *Plato's Cosmology*, pp. 59-61), supports his mistaken conclusion (p. 196) that the soul is an idea.

in his vocabulary as much significance as this study presumes from the outset.

A word will suffice for the "chronological" aspect of Brommer's study. He adopts in principle Constantin Ritter's order of the dialogues, but that counts for little against his assumption that Plato reworked them throughout his life so that there are "later modifications" in the earliest and "earlier parts" in the most mature of the writings. This assumption is employed with such abandon, vagueness, and lack of system and supporting evidence that it is impossible to be sure just what part of any dialogue Brommer himself believes is early or late, since almost every one appears to belong in part before and in part after almost every other.²¹ Since the marshalling of proofs in such matters seems to Brommer to be an archaeological task of little interest from the philosophical point of view (p. 95), it is difficult to understand why he added the adjective "chronological" to the title of his book.

The books of Moreau and Brommer would have offered Professor Richard Robinson many examples of the five types of misinterpretation against which he protests in the introductory chapter of his study, *Plato's Earlier Dialectic*.²² Mosaic inter-

²¹ For example, the *Phaedrus* is the earliest dialogue; but the third discourse is late, in fact parts of it are later than the *Timaeus* and are built upon the *Epinomis* (pp. 95, 99-100). Then again the *Phaedrus* and the last reworking of the *Symposium* both fall between the *Republic* and the *Timaeus* (p. 102), though the last part of Diotima's speech presupposes both the *Republic* and the *Timaeus* (p. 49), although the *Republic* is, of course, supposed to have undergone so many revisions that almost anything in any other dialogue may be earlier or later than some part of it. So the "supreme idea" in the *Republic* is the reply to the criticism of the ideas in the *Parmenides* (p. 156), but the second part of the *Parmenides* is the transcendent mathematics for the lack of which the mathematicians are criticized in the *Republic* (p. 170); yet Plato was writing the *Parmenides* during all the period in which he was working on the *Sophist* and *Politicus* (p. 6), and the last part of the *Theaetetus* is later than the *Sophist* (p. 117), although the *Theaetetus* in its first form is intermediate between the *Meno* and the *Phaedo* (pp. 110-111) while the section on method in the *Phaedo* and the final argument in that dialogue are later additions (p. 57).

²² Richard Robinson, *Plato's Earlier Dialectic* (Ithaca, Cornell University Press, 1941), pp. viii + 239.

pretation, misinterpretation by abstraction and by inference, insinuating the future, and going beyond a thinker's last words—in order to avoid these errors Robinson proposes “not to attribute to Plato any inference that he does not make in so many words or any abstraction that he does not have a name for, without giving a special reason for doing so.” In addition to this rigorous canon he enunciates two fundamental assumptions of his interpretation: 1) “to possess a single name for an idea is a later stage than to be able to express it only in a sentence” and 2) “there is an evolution of ideas, transcending the lives of individuals, even the most obvious ideas were once obscure and still earlier unknown, and this evolution, while often proceeding by sudden leaps or ‘mutations,’ often also advanced by very gradual ‘variations’.” However obvious these assumptions may appear to the “historically minded” majority today, they are nevertheless not free of danger for the interpreter. The former assumption must be carefully qualified in its application to dialogues written by a philosopher who in them may purposely have avoided the use of technical terminology (cf. *Theaetetus* 184 C; *Politicus* 259 C, 261 E; *Republic* 533 D 7 ff.). The latter assumption disregards the fact that some notions held by some individuals to be true have become obscure, have been forgotten, and after many years have been rediscovered by other individuals. Robinson objects (pp. 29-30) to the belief that certain propositions *must* have been obvious to Plato because they *are* so obvious to any intelligent person; but it is no less objectionable to believe that what is obvious to any intelligent person was not obvious to Plato, just because he lived a long time ago, or even that a true proposition of which I have only recently become aware could not have been obvious to Plato for the same reason. Robinson states that the belief to which he objects “is destructive of any true history of human thought”; it is so only on the assumption that the true history of human thought is “an evolution of ideas, transcending the lives of individuals,” an assumption against which there are contradictory instances to be cited.

Professor Robinson announces his subject as the examination of what Plato has to say about method apart from the theory of synthesis and division, prominent in the *Phaedrus*, *Sophist*, *Statesman*, and *Philebus*, and the methodology of the *Parmeni-*

des.²² His book is consequently divided into two parts, one on Socratic elenchus and definition, which is said to be the outstanding feature of the early dialogues, and another on dialectic and specifically hypothesis, which is supposed to be prominent in the middle dialogues.

Of the elenchus as depicted in the early dialogues Robinson draws a picture "by no means favorable." The method, he says, involved persistent hypocrisy, showed a negative and destructive spirit, and caused pain to its victims (p. 10). He believes that he can conjecture what answers Plato would have made to his objections that the elenchus only tells you that you are wrong without telling you why and that it would in any case be more effective without the Socratic irony; but these conjectural answers apparently do not mitigate his disapproval of the method which, he says, in the middle and later dialogues loses its irony, is incorporated into the larger whole of dialectic, and, though often referred to and recommended, gradually ceases to be actually depicted. A certain scepticism of this chronological distinction and its implications is aroused by the fact that of the three passages cited by Robinson as alone offering any general discussion of the purpose of elenchus one, *Sophist* 229 E-230 E, and that the one which calls the method "the greatest and most sovereign of the purifications" is from a dialogue of the "middle period"; and this scepticism can only be intensified when one recalls that the *Theaetetus*, which is not mentioned here, is one long and complicated elenchus highly seasoned with the irony that should have disappeared. Later (pp. 87-88) the elenchus of the *Theaetetus* is represented as a kind of independent personality adopting subterfuges "to maintain itself in Plato's alien mind," the figure of Socrates' midwifery being a purely Platonic invention which "serves the unconscious purpose of enabling the elenchus to maintain a good standing in an otherwise very un-Socratic mind." One need not take too seriously this personification and conscious invention for an unconscious purpose which hardly conform to Robinson's severe canons of interpretation, for in the last chapter of the book (p. 216) it is suggested that not only the long elenchus of the *Theaetetus*

²² The *Parmenides* is the subject of an article by Professor Robinson in *Class. Phil.*, XXXVII (1942), pp. 51-76 and 159-86.

but that of the *Cratylus* and of the *Parmenides* too represent what after a long detour Robinson practically identifies with the dialectic of the "middle period."

The main contention of chapter 3 is that Plato, though unaware of the logical distinctions involved, thought of elenchus as being always indirect, as never using an independent premise, and as always reducing the thesis to a contradiction. This proposition Robinson seeks to establish by citing examples of refutations in the dialogues which are in fact direct but to which Plato refers in words which Robinson believes must imply that they are indirect reductions to a contradiction. There is a highly questionable literalism about Robinson's interpretation of most of these examples;²⁴ but apart from these *Phaedo* 101 D is the strong evidence on which he really rests his case. This passage according to him shows Plato to have consciously assumed that the consequences of a single thesis may contradict each other without the aid of any extra premise. This "logical monstrosity," Robinson says, is a natural accompaniment of the assumption that all elenchus reduces the thesis to self-contradiction; but later in his longer discussion of the *Phaedo* passage he points out (p. 137) that an hypothesis really can have consequences which contradict one another or itself if the hypothesis is not an atomic proposition and that a definite distinction between complex and atomic propositions probably cannot be made.

The main conclusion of the next chapter is that Plato shows

²⁴ They are (pp. 30-31) *Republic* 341 C-343 A, *Republic* 380 C, *Gorgias* 487 B, *Theaetetus* 155 B. The last is a half-humorous passage which is correctly explained by Campbell, *The Theaetetus of Plato*, p. 53. The statement in the *Gorgias* that Polus and Gorgias διὰ τὸ αἰσχύνεσθαι τολμᾷ ἑκάτερος αὐτῶν αὐτῷ ἐναντία λέγειν is not a technical description of the "direct" refutation of Gorgias; it occurs in the ironical speech to Callicles and is a purposeful echo of the statement of Callicles in 483 A who has there introduced the "contradiction" of φύσις and νόμος. In *Republic* 380 C οὕτε σύμφωνα αὐτὰ αὐτοῖς does not say, as Robinson states, that Homer's and Hesiod's tales about the gods contradict themselves; it refers to κακῶν αἰτίων φάναι θεῶν τινα γίγνεσθαι ἀγαθὸν δὲ οὐκ at the beginning of the sentence. As regards the first passage, Robinson's notion that ὁ τοῦ δικαίου λόγος εἰς τοῦναντίον περιεστέκει (343 A 2) must mean that the thesis entailed its own contradictory has been adequately refuted by Friedländer in *Glass. Phil.*, XL (1945), p. 253.

no methodological consciousness of epagoge and that therefore his depiction of it in the earlier dialogues made no impression on his own theory of method (pp. 47-8). In fact, Robinson finds epagoge to be much less frequent in the early dialogues than it seems to be on a casual reading and explains the chief reason for this to be that it is only a part of a more pervasive feature which he calls "the use of cases" or "analogy."¹⁵ In this connection he observes (p. 45) that where epagoge is conceived as a form of intuition each case is sufficient by itself, an observation which has some bearing upon his earlier remarks that Plato did not distinguish intuitively certain, enumeratively certain, and probable epagoge (p. 38) and that the elenctic dialogues show no trace of entertaining in the abstract such a connection between epagoge and intuition as Aristotle proposes in *Anal. Post.* 100 B (pp. 39-40). The kind of explanation offered by Aristotle in that chapter Plato had already rejected (*Phaedo* 96 B 5-8); and, considering that the particular serves only to remind us of the universal to which we then refer it (*Phaedo* 75 B-E, 76 D-E; *Phaedrus* 249 B-C), he speaks of *ἀνάμνησις* where Robinson talks of intuitively certain epagoge. There would be for Plato then no question of "enumeratively certain" and "intuitively certain" epagoge, for in any case just enough particular instances must be cited to "remind" the interlocutor of the universal or, since Plato was writing dialogues, to make it seem plausible that the particular interlocutor would be so reminded.

The final chapter on the elenchus is concerned with the Socratic quest for definition or, as Robinson puts it, "the What-is-X question." Robinson says that in the early dialogues no justification is offered for the unlimited priority assigned to this question;¹⁶ and to the argument for this priority in *Phaedrus* 260 he replies that we can and do make useful statements about

¹⁵ By this he means substantially what Aristotle calls *παράβολή*, a sub-class of *παράδειγμα* which is *ὁμοίως ἐκτεταγμένη*, and ascribes to Socrates in *Rhetoric* 1393 B 3-8 (cf. A 26-27), a passage not mentioned by Robinson in his discussions of the Socratic use of cases and of Aristotle on Socratic epagoge.

¹⁶ In view of *Protagoras* 360 E-361 D the course of that whole dialogue might be taken as a proof by example of the necessary priority of the question. Cf. also *Meno* 86 D and 100 B.

X without being able to say what X is in the way Socrates desires. In rejoinder one can almost hear Plato asking the "twentieth-century philosopher" what he means by "useful" in this context and how he knows that his statements are "about X" at all if he does not know what X is. Robinson analyses thoroughly the possible ambiguities of "What is X?", which he considers the vaguest of all questions, at least out of context; but he admits that Socrates' explanations give a context determining this vague form to mean the search for essence (p. 61). Moreover, Socrates was not asking the question merely as an exercise in method. People in Athens used the words "virtue," "justice," "good," "useful" as if they were univocal and used them to justify all sorts of actions and theories; it is in the case of such words, Socrates points out (*Phaedrus* 263 A-B), which people use without clearly defined agreement as to their meaning that oratory has its greatest power of deception, words which, as Robinson says (p. 55), Socrates and his companions would be said in unphilosophical circles to know the meaning of perfectly well. Socrates' question was designed to suggest that they did not know the meaning so well as they supposed and that perhaps their actions and theories were not so well supported by these words as they assumed. "For unless you clearly understood 'pious' and 'impious' it is not possible that you would ever have undertaken to prosecute your father for murder," Socrates says to Euthyphro at the end—ironically, no doubt; but is not irony in place? "I say that 'pious' is what I am now doing," Euthyphro had declared; and any newspaper will show that Euthyphro is neither a straw-man for Socrates' "What-is-X question" nor an archaeological monument of the history of human thought and action.

The second part of the book opens with a chapter on dialectic in general and another on hypothesis, which, Robinson maintains, is the keyword for dialectic in the middle dialogues, *Meno*, *Phaedo*, *Republic*, and *Parmenides*; and these are followed by chapters on hypothesis in the *Meno*, the *Phaedo*, and the *Republic* respectively. The first of these chapters contains many sound observations on what may be called the constant characteristics of dialectic and is concluded by a demonstration that Plato invented both the notion and the name, a demonstration which is on the whole cogent despite the desperate and unnecessary

contention (p. 94) that *Philebus* 16 C is to be taken seriously as Plato's "deliberate statement that he was himself inspired in inventing dialectic."¹⁷ Quite unsatisfactory, however, is Robinson's notion of the real reason for Plato's doctrine that the supreme method of dialectic entails question and answer. Question and answer, he says (p. 87), being necessary to the Socratic elenchus, entered into the blood of Socrates' pupil who never fully appreciated the distinctness of Socrates' destructiveness from his own constructiveness. That dialectic demands question and answer because it demands elenchus which demands question and answer was not a reasoned conclusion but merely an assumption carried over from Plato's pupilage; otherwise, he asserts, it could not have still commanded his absolute confidence even in his late period when dialectic had taken the form of division and synthesis. Now, that the dialectic of the late period was thus radically different from that of the early and middle periods is a highly questionable assumption; but as an assumption not argued in this book it falls outside the scope of this review, although it should be observed in passing that one of Aristotle's objections to diaeresis is that it *does* depend upon question and answer (cf. *Anal. Post.* B, chap. 5). Robinson himself, however, cites *Theaetetus* 189 E and *Sophist* 263 E, dialogues of the "middle period," for Plato's definition of thinking as the dialogue of the soul with itself; and it is a work of the "late period" in which Plato applies this notion of the internal dialogue even to the case of simple perceptions (*Philebus* 38 C-E). It is most unlikely that this notion would be developed precisely in that period when according to Robinson "the pretence of question-and-answer misfits the form" of the writings, if it had been merely an unconscious assumption carried over from Plato's pupilage. It is more reasonable to say, as Robinson in fact does later say (p. 93), that the idea of using exclusively conversational question and answer in dialectic is the result of reflecting on the Socratic elenchus. Nor is Plato's conclusion from that reflection antiquated, despite Aristotle's dicta of which Robinson apparently approves (p. 88), for it has been affirmed even in this century that the scientific investigator proceeds to discovery by putting to himself pertinent questions.

¹⁷ Are we to take seriously *oi παλαιοί κτλ.* (16 C 7) too; and, if so, how can *διὰ τινος Προμηθείας* refer to Plato himself?

The most important conclusions of the next chapter (chap. 7) are that for Plato an hypothesis is not necessarily existential or of any other form (pp. 104-9) and (pp. 115-17) that an hypothesis, being a proposition posited *at the beginning* of a train of thought, is naturally and normally posited for the proof of some *other* proposition, a premise and not a demonstrandum. There is difficulty in maintaining the latter conclusion in the face of the many passages where the refutandum is called an hypothesis; Robinson does so by contending that hypothesis has this sense only subordinately and came to have it because of Plato's conception of elenchus as always indirect. This conclusion as to the primary meaning of hypothesis is Robinson's reason for deciding in the next chapter (pp. 122-8) that the hypothesis in the *Meno* is "if virtue is knowledge, it is teachable"; and, having come to this conclusion, he declares (p. 126) that Plato by choosing this as his hypothesis practically destroys the essence of the hypothetical method as it afterwards became. Despite Robinson's analysis, however, it seems certain that the hypothesis is not the alternative on which he has decided but the one which he rejects, namely "virtue is knowledge";²⁸ and, if this is so, the procedure in the *Meno* is in accord with that recommended in the *Phaedo* (save, of course, that no *καθόν* is reached), for "virtue is good," which is unquestionably called an hypothesis (87 D 3), is posited in order to deduce from it that virtue is knowledge, which was first set up as an hypothesis from which the teachability of virtue was deduced.

The first part of the chapter on the *Phaedo* is devoted to the "metaphor" of *συμφωνεῖν* in 100 A and 101 D. Robinson decides that the word means "consistency" in both passages,²⁹ although

²⁸ This is also the conclusion of Friedländer (*Class. Phil.*, XL [1945], p. 255) who points out that 87 B 3-4, *ἐποθέμενοι αὐτὸ σκοπούμεν εἴτε διδάκτον εἴτε οὐ διδάκτον ἐστὶ* demands this interpretation and rightly interpreted makes the analogy with the mathematical example precise. In this example τὸ συμβαίνειν is not part of the hypothesis itself, which is just τοῦτο τὸ χαρίεν τοιοῦτόν ἐστι; and similarly with virtue the hypothesis is ἀρετὴ τοιόδε τι τῶν περὶ τὴν ψυχὴν ὄντων (87 B 5), namely *δυσωρίστη*. This is further proved by 89 C 2-4 where the position of *ὅτι* shows that the sentence means "it is clear that it is teachable according to the hypothesis if virtue is knowledge" (cf. 89 D 2).

²⁹ The meaning of *συμφωνεῖ* need not coincide with either "is con-

he thinks that in the first case Plato really had in mind two things, implication and inconsistency, but expressed himself inadequately in order to preserve conversational simplicity and he has in the second to explain how the consequences of an hypothesis can be inconsistent one with another. As to the *ικανόν* of 101 E which is the end of the process of hypothesizing a higher hypothesis, Robinson states that it means an hypothesis adequate to satisfy the particular interlocutor and that, since Plato is merely aiming at an hypothesis that the objector will agree to, epistemology does not enter into the matter at all and as a consequence there is no connection between the *ικανόν* of the *Phaedo* and the *ἀνυπόθετος ἀρχή* of *Republic* 511. Plato does not say, however, that you will not posit the higher hypothesis *unless* the interlocutor objects to your present hypothesis. If he does so object, you will *not* at once set up the new hypothesis (101 D 3-5); but *ἐπειδὴ δὲ ἐκείνης αὐτῆς δέοι σε δίδοναι λόγον* certainly does not imply that you won't do so at all unless he does so object. Socrates' statement at 107 B 5-6, *τάς γε ὑποθέσεις τὰς πρώτας, καὶ εἰ πισταὶ ὑμῖν εἰσιν, ὅμως ἐπισκεπτέαι σαφέστερον*, surely shows that a serious thinker must of his own accord in the proper course proceed back to a *ικανόν*. Nor has Robinson any reason for saying that this *ικανόν* is meant to be an hypothesis in the same sense as the hypotheses which lead up to it. The very wording *τι ἱκανόν* in contrast to the *ὑπόθεσιν ἦτις . . . βελτίστη* immediately preceding implies that Plato is thinking of it as something different, and the *περὶ τῆς ἀρχῆς* immediately following suggests that he is thinking of it as an *ἀρχή* in a special sense, while *ἅπερ βούλοιο ἡ τῶν ὄντων εὐρεῖν* (101 E 3) shows that he is not here concerned simply with methodology divorced from ontology. There is every reason then to take the *ικανόν* here as the equivalent of the *ἀρχή ἀνυπόθετος* of the *Republic* or rather to take the latter as a special case of the former.⁴⁰

sistent with" or "is implied by," as Robinson assumes that it must (pp. 131-2). It is certainly not equivalent to the latter, but the neutral logical meaning of the former is not specific enough for it either. It has rather the positive meaning of "fitting together" as its use in *Sophist* 253 B illustrates, where it is used of the "kinds" that mix or join as opposed to those which *ἑλληλα οὐδέχεται* and is parallel to *συναρμόττει* in 253 A.

⁴⁰ There is a curious echo of this in Aristotle's *Metaphysics* where the

Robinson believes, however, that the ἀντιθέτος ἀρχή of the *Republic* is a distinctive addition to the hypothetical method of the *Meno* and the *Phaedo* which changes it from a merely approximative method, at variance with Plato's belief in the possibility of incorrigible knowledge, to a means of reaching absolute certainty. This, of course, determines his interpretation of the "upward path." After examining at length and criticizing with acuteness the principal interpretations, 1) the view that the dialectical procedure is merely self-criticism and self-correction, the readiness to reconsider and go behind any postulate,⁴¹ 2) the "synthesis" theory, 3) the mathematical interpretations, and 4) the "intuition theory," he adopts what he calls the "elenchus theory," which is in fact a combination of 1 and 4 above and his description of which (p. 179) may be summarized as follows. You take an hypothesis and deduce its consequences, trying to discover some contradiction in those consequences. When you do, the hypothesis is refuted and you take another, designed to avoid the contradiction. You continue this process for a long time. One day you reflect that this hypothesis has endured every test; and it dawns upon you that this hypothesis is true, is in fact no longer an hypothesis but an anhypotheton. The "dawn" is equivalent to an intuition; all that precedes is the hypothetical method as previously elucidated but here exercised solely in order to test the hypothesis itself. According to Robinson's interpretation, therefore, the hypothesis which in the *Meno* was only a premise and in the

ἀντιθέτος in 1005 B 14 makes the philosopher's ἀρχή in his field equivalent to the ἁπλόν of the special sciences (1005 A 25).

Robinson's view of the discrepancy between the ἁπλόν and the ἀντιθέτος ἀρχή appears to be responsible for his notion that Plato in the *Phaedo* made the abandonment of the search for the Good simultaneous with the adoption of the hypothetical method. Friedländer (*Class. Phil.*, XL [1945], p. 256) has adequately shown that there is in the *Phaedo* no renunciation of the search for the kind of causal explanation that Socrates had hoped to get from Anaxagoras; and, as I have suggested elsewhere (*Aristotle on Plato*, p. 451), the very wording of the *Phaedo* indicates that Plato had in mind here the account of causality given in the *Timaeus*.

⁴¹ What Robinson gives as the "second theory of the upward path," namely that it is the process of giving an account of your hypothesis described in the *Phaedo* (p. 168), was conceived by Shorey to be the same as the first, which Robinson gives as Shorey's interpretation.

Phaedo was mainly a premise but secondarily a proposition to be tested by the consistency of its consequences becomes in the "upward path" primarily and exclusively a proposition to be tested by means of the elenchus. The new claim for certainty, according to Robinson (p. 184), is made on the ground of the old hypothetical method; and the hypothetical method itself is even older than it was in the *Phaedo* or the *Meno*, for it has gone back to being practically the Socratic elenchus.

It is certainly true that elenchus is an important factor in the highest section of the "line"; but Robinson's attempt to restrict this to elenchus is certainly an erroneous limitation.⁴² If it were accurate, there would be no "upward path" in any sense; but that μέχρι τοῦ ἀνυπόθετον ἐπὶ τὴν τοῦ παντὸς ἀρχὴν ἰών (511 B 6-7) means motion "upward" in some sense is guaranteed both by the following πάλιν αὖ . . . ἐπὶ τελευτὴν καταβαίνειν and by the preceding οὐκ ἐπ' ἀρχὴν ἰοῦσαν ὥς οὐ δυναμένην τῶν ὑποθέσεων ἀνωτέρω ἐκβαίνειν (511 A 5-6). There is no reason—except Robinson's gratuitous refusal to equate ἱκανόν and ἀνυπόθετον—for not taking this upward motion to be the ἄλλην αὖ ὑπόθεσιν ὑποθέμενος ἥτις τῶν ἀνωθεν βελτίστη φαίνοιτο ἵνα ἐπὶ τι ἱκανὸν ἔλθοις of *Phaedo* 101 D-E; and only this can explain the πορεύεται τὰς ὑποθέσεις ἀναιρούσα ἐκ' αὐτὴν τὴν ἀρχὴν of *Republic* 533 C 8, for each hypothesis as soon as it is deduced from a "higher" hypothesis ceases to have the character of an hypothesis. This "destruction" occurs at each step on the upward path and is *not*, as Robinson says it is (p. 167), "contemporary at the earliest with the final instant of that progress," although one cannot be sure that the destruction is final and correct until one has reached the ἱκανόν or ἀνυπόθετον. The tense of the participle ἀναιρούσα itself proves this, and to make doubly sure that this sense should not be overlooked Plato put the participial clause between πορεύεται and ἐκ' αὐτὴν τὴν ἀρχὴν.

As to ἀνυπόθετον, Robinson rightly observes (p. 163) that Plato apparently coined it for use here in the *Republic*; but it is

⁴² "Division" is certainly not absent from Plato's conception of the method represented by the highest section of the line, for not only is it given in 454 A as the distinctive mark of διαλέγεσθαι as opposed to ἐρίζειν but in 534 B-C, a passage which Robinson calls "complementary to the Line itself" (p. 181), the process is unmistakably described (B 8-C 1) as part of the distinctive method of the διαλεκτικός.

strange for him to add (p. 164) that it seems to be equivalent to "beginning" in Plato's terminology here, for in the first of its two appearances it is an adjective modifying ἀρχή (510 B 7). Since it is a coinage and not merely a negative of ὑπόθετος, a form which Plato does not use, it probably has an etymological sense connected with the etymological turn given to ὑπόθεσις in 511 B 5-6, τῷ ὄντι ὑποθέσις ὅλον ἐπιβάσις τε καὶ ὁρμάς, in which sense ὑποθέσις is contrasted to ἀρχάς. It ought not then to be thought of as "unhypothesized," the negative of the action "to hypothesize," but as "not resting under something else to which it is a stepping-stone." On Robinson's interpretation of the Divided Line or that of anyone else the ἀνυπόθετος ἀρχή is an "hypothesis" in the sense that it has been "posited," at any rate at first—how else did you reach it?—but it is ἀνυπόθετος in the sense that you cannot posit another hypothesis from which you can deduce it, and that is why it is a *true* ἀρχή. The idea of good is such an ἀρχή, not because all else is ontologically derivative from it but simply, as Cornford has said (*Parmenides*, p. 132), because "you cannot ask for a reason for goodness; the good is an end in itself."

Chapters 11 and 12 constitute a kind of pendant to the study of hypothesis. In the first of these it is argued that there is no precise correspondence between the Divided Line and the Cave. This position, so long as the limitation "precise" is observed, is certainly correct, although some of Robinson's supporting arguments are exaggerated.⁴³ At any rate, the main points of this

⁴³ Friedländer (*Class. Phil.*, XL [1945], p. 259) properly criticizes Robinson's interpretation of *Republic* 515 D and 532 A-C (pp. 195-6). The important point, however, is that, since the chained inhabitants of the cave can see only the shadows on the wall and because of the echo suppose these shadows to be speaking, the shadows cast on the wall of the cave symbolize *all the sensible objects* of our world, not merely the lowest division of the line (cf. 515 C 1-2, 516 C 8 ff. and E 8 ff.). The objects which cast these shadows are simply necessary machinery (cf. Shorey, *Idea of Good*, p. 237 and Cornford, *Republic*, p. 223, n. 1), which, if they stood for anything, would have to symbolize the ideas. Nor is there in what we are told of the functioning of διάκρυα which uses as εἰκόνες the objects imitated by the lowest section of the line (τοῖς τότε μιμηθείσιν, 510 B 4), that is the sensible objects themselves, any parallel with the shadows and reflections outside of the cave or with the figurines within.

chapter are both right and well brought out: 1) the division of the upper line is one of method only, the point being that we must distinguish a lower and a higher way of getting at the intelligible world, 2) there are no "objects of mathematics" apart from the ideas,⁴⁴ and 3) Plato in the Line is proposing not a change in mathematics but a step out of and beyond mathematics.

The final chapter develops the thesis that whereas the hypothetical method is recommended in the "middle dialogues" very little use is made of that method in these works, which rely rather on analogy and imagery although what Plato says of analogy and imagery is usually unfavorable. That Robinson can be so much troubled by this apparent incoherence between Plato's method and methodology despite his own interpretation of the method used in the *Theaetetus*, the *Cratylus*, and the *Parmenides* and despite his recognition of *Politicus* 277-279 as a justification of the use of analogy is the natural result of his attempt to treat Plato's "logic" apart from his epistemology and ontology. The questions raised by Robinson and his method of treating them are important especially because they bring into sharp juxtaposition the attitude toward philosophy of the modern logician and that reflected in Plato's dialogues. Plato wrote no treatise on method; and the passages which are the subject of Robinson's study not only constitute but a tiny part of the writings from which they are extracted but all occur in those writings in contexts which are something other than "methodological." Moreover, the form of these writings itself constitutes a "method," behind which with important bearing upon its usefulness and justification lies Plato's theory of ideas and reminiscence with all of its consequences for discovery, demonstration, and teaching. Professor Robinson, like Glaucon, desires Plato to give an exhibition of the dialectic leading to an "anhypothetos arche"; he does not notice the way in which Socrates excuses himself from complying with Glaucon's request (*Republic* 533 A), a request which overlooks the very nature of dialectic and its necessary propaedeutics which by the figures of the sun, the line, and the cave Socrates has just tried to explain.

⁴⁴ These points are made by Moreau also in *La Construction*, pp. 343-6, though he arrives at the conclusion in quite a different manner.

If, then, Plato often points out the dangers of analogy and imagery and speaks scornfully of imitation, he still can hold that there is a proper and necessary use of these devices for those who are not yet dialecticians; for man, so long as he is man, one kind of imitation remains the highest goal, ὁμοίωσις θεῷ κατὰ τὸ δυνατόν, and even of the imitation which is tragedy there is a good kind as well as a bad: ἡμεῖς ἐσμὲν τραγῳδίας αὐτοὶ ποιηταὶ κατὰ δύναμιν ὅτι καλλίστης ἅμα καὶ ἀρίστης· πᾶσα οὖν ἡμῖν ἡ πολιτεία συνέστηκε μίμησις τοῦ καλλίστου καὶ ἀρίστου βίου, ὃ δὴ φάμεν ἡμεῖς γε ὄντως εἶναι τραγῳδίαν τὴν ἀληθεστάτην (*Laws* 817 B).

II.

The long awaited edition of the *Philebus* in the "Budé Plato" was finally published in 1941 and so too late to be made available to scholars in this country for four years more.⁴⁰ Now that it has become available, it furnishes further evidence, if any of little faith required it, that the scholarship of France was no more impaired than was the spirit of France poisoned by the black cloud under which the oppressor tried clumsily to stifle her. With the publication of the *Philebus* Professor Auguste Diès has completed the series of so-called "metaphysical" dialogues which the Budé Association happily commissioned him to do for its edition of the Platonic Corpus. The organization of this volume is the same as that of the others in this series: the Greek text with *apparatus criticus* and a French translation with a few necessary exegetical notes on alternate pages are preceded by an introduction, which here as in the other volumes done by Professor Diès amounts in itself to a substantial monograph.⁴¹

⁴⁰ Platon, *Oeuvres Complètes*, Tome IX, 2me Partie: *Philèbe*, Texte établi et traduit par A. Diès (Paris, "Les Belles Lettres," 1941), pp. cxv + 94 double pages. Whether this edition was available to R. Hackforth before he published his translation and commentary entitled *Plato's Examination of Pleasure* (Cambridge University Press; Macmillan Co., 1945) I do not know, for Mr. Hackforth's book was out of print before I could obtain a copy of it and my knowledge of its contents derives only from the reviews of it by Professor Morrow (*C. W.*, XXXIX [1945], pp. 62-3) and Professor Post (*A. J. P.*, LXVII [1946], pp. 378-80).

⁴¹ A general introduction to the metaphysical dialogues was prefixed

A reviewer need hardly report that the translation in this volume is generally correct. At times, however, it is so "free" that while the sense of the argument is faithfully rendered—perhaps with the greater clarity for a reader who does not use the translation as a commentary on the Greek text—it is difficult to determine in detail how the contorted Greek has been construed. In a few passages the interpretation of an important point is questionable. "Cette identité de l'un et du multiple manifestée par le discours" is at least misleading as a translation of 15 D 4-5,⁴ which means that in discussion of anything we always find the same thing being talked of as both one thing and many things. Diès translates 17 C 1-2, where like Bury he omits καὶ τὸ before κατ', "Dans cet art aussi et pour autant qu'il en relève, le son est un"; but his text means "Sound, I presume, is one in it (*scil.* music) just as in the former art (*scil.* grammar)." In 20 C 4 τῶν . . . εἰς τὴν διαίρεσιν εἰδῶν ἡδονῆς κτλ. cannot mean "nous n'aurons plus alors besoin des espèces du plaisir pour notre division." The position of εἰς τὴν διαίρεσιν forbids this; εἰδῶν must depend upon διαίρεσιν, and the meaning must be "the questions pertaining to the division of the kinds of pleasure." Diès appears to have taken ἐν τῇ συστάσει in 29 A 11 to refer to the universe, translating "les composants . . . entrent aussi dans la constitution de l'univers." There is nothing for "aussi" in the Greek, and not until B 9 does the parallel with the universe begin. This passage says only "with respect to the nature of all living bodies we observe fire, water, air, and earth . . . in their constitution." In 34 B 7 ὅτι μάλιστα means not "aussi fermement que possible" but "de son mieux"; the same slip occurs in 34 C 6-7. In 35 A 6 ὁ τὸ πρῶτον κινούμενος is translated "lorsqu'on serait vide pour la première fois"; but surely the sense required of τὸ πρῶτον is "to begin with," not "for the first time." "Le principe moteur de tout animal" is at least "overtranslation" of τὴν ἀρχὴν τοῦ ζῴου παντός in 35 D 8; the phrase means "the sovereignty of all the living being," i. e. of

by Professor Diès to his special introduction to the *Parménides* (Platon, Oeuvres Complètes, Tome VIII, 1re Partie: *Parménide*, pp. v-xix). Cf. also chapter III of the same author's book, *Autour de Platon*, pp. 300-51.

⁴ Since the lines of the Budé edition are not numbered, I add to the Stephanus pagination in my references the numbers of the lines in Burnet's text.

the whole creature, not "of every animal." The famous phrase, *δαινοὺς λεγομένους τὰ περὶ φύσιν*, in 44 B 9 is rendered "réputés pour très habiles dans la connaissance de la nature." This is the conventional interpretation which has played such a large part in the controversy over the identification of these "real enemies of Philebus." Yet for the sense which this interpretation puts upon "nature" one should expect *περὶ φύσεως*, not *περὶ φύσιν* (cf. *Phaedo* 96 A: *ἣν δὴ καλοῦσι περὶ φύσεως ἱστορίαν*, and *Philebus* 59 A 2); and the *δυσχερεῖα φύσεως* of these same people in 44 C 6 *infra* suggests that *τὰ περὶ φύσιν* here means "their nature" in the same way as *τὰ τῆς φύσεως* does in *Phaedrus* 279 A (*δοκεῖ μοι ἀμείνων . . . τὰ τῆς φύσεως*). In 51 E 4 *τοῦτ' ἐκείνοις τίθημι ἀντίστροφον ἄπαν* is translated "marque pour moi un genre tout entier opposé à celui que nous venons de voir." "Analogous" or "corresponding," however, is the meaning of *ἀντίστροφον*, as it is correctly interpreted in 40 D 5 and 57 A 10; and Socrates here means that odors in respect of this characteristic are the counterpart of the objects of pure pleasures treated above. In 63 B 7-8 the Greek must mean not "rester seul, isolé, inassocié, ce n'est pour aucun genre ni possible . . . etc." but "rester seul et isolé, ce n'est pour aucun genre pur ni possible . . . etc."

The text which Professor Diès here publishes is based upon his own collation of the photographs of B and T, the MSS on which Burnet's text is chiefly based,⁴⁸ and of W, which Burnet did not collate. To the establishment of this text, therefore, has gone material which Burnet did not have at his disposal. Were I now simply to add, however, that I have counted 65 passages⁴⁹ in which the *Philebus* according to Diès differs from the *Philebus* according to Burnet, I should give a false impression of what may be called the degree of established difference between the two texts. There are on the one hand about a dozen readings adopted by Burnet either from inferior MSS or critical conjectures which now appear in Diès' text on the authority of W.⁵⁰

⁴⁸ In more than a dozen places Diès' report of these MSS differs from that of Burnet.

⁴⁹ I say "passages," not "readings," for sometimes more than a single word is involved. E. g. in the sentence 46 D 7-47 A 1 Diès differs from Burnet in four places and from Bury in two, agreeing with Bury against Burnet in the former readings and with Burnet against Bury in the latter.

⁵⁰ E. g. 33 C 1: *ἐπισκεψόμεθα*, 52 A 5: *πληρωθεῖσιν*.

On the other hand, of the 65 places in which Diès differs from Burnet the text which he prints is in 21 cases that printed by Bury, while in 28 of the cases in which he differs from both Burnet and Bury his text is either a MS reading rejected by them or an emendation of some earlier critic which they had already recorded.⁵¹ There remain 16 cases of difference from both Burnet and Bury, of which 8 are Diès' own conjectures and 8 are new readings provided by W. It is interesting to observe that of this last group 4 had already been proposed as emendations, 2 by Badham, 1 by Jackson, and 1 by Liebhold. They are as follows: 26 D 9: ἀπειργασμένην,⁵² 47 D 3: γιγνομένην,⁵³ 51 C 6: σου,⁵⁴ 57 D 4: ἀποκρινόμεθα,⁵⁵ 58 D 4: ἀλλ' ἢ τις,⁵⁶ 60 D 8: ἦν,⁵⁷ 64 E 1: συμπεφυρμένην,⁵⁸ 66 A 8: τινὰ ἥδιον ἡρῆσθαι.⁵⁹ So much for the "new" readings adopted from W; let us turn now to Diès'

⁵¹ Two of these are suggestions which Bury made but refrained from printing in his text (34 C 10: *τις* for *τῆς* and 56 A 3: transposition of *μουσική* and *ἀντὶς ἀλχητική*). Seven of them, a quarter of all these cases, are Badham's conjectures.

⁵² Proposed by Jackson, the conjecture was hesitatingly approved by Bury. Proclus can be cited in support of this reading: . . . τῆς δλῆς ἀπειρίας μετὰ τῶν τοῦ πέρας μέτρων γένεσιν ἀπειργασμένην (*In Timaeum* 53 E-54 A [I, p. 174, Diehl]).

⁵³ Proposed by Badham.

⁵⁴ Bury's *apparatus* records this as the reading of T (Coislinianus), but neither Burnet nor Diès mentions the variant.

⁵⁵ Bury's *apparatus* records "ἀλλ' ἢ τις X w," but neither Burnet nor Diès mentions this variant.

⁵⁶ Burnet and Bury both report *ἦν* as the reading of T, but Diès gives it as *ἦν*. At any rate his adoption of *ἦν* here seems to be a case of over-enthusiasm for W. *ἦν* . . . *δέξασθαι* will not do; the case is not parallel to *ἐκπεῖν* *ἢ* *τις* . . . *δέξασθαι* *ἢ* two lines above, and *ἦν* is both necessary and right.

⁵⁷ Proposed by Liebhold.

⁵⁸ Adopting this reading from the margin of W, Diès reads in the preceding line *τοιαῦτα χρῆ* with T and Stobaeus instead of the *χρῆ τοιαῦτα* of B and Eusebius which Burnet and Bury print. Diès defended this correction of W as the true text in a communication to the International Congress of Historical Sciences at Brussels in 1923 (printed in his *Autour de Platon*, pp. 385-99), and he upholds it here, pp. lxxxviii f., against more recent "emendations" of this notorious crux, also pointing out on p. 92, n. 1 that the corruption is a case parallel to that in *Politics* 305 D where B has *την αἰδίας* in place of *τις αἰδίας*. Certainly Diès' reading has more authority and makes better sense than any of the many emendations so far proposed.

own emendations. In 30 E 1 for γερούσσης of all the tradition save B, which has γένουε τῆς (adopted by Burnet), Diès writes γένουε τις, comparing τοῦ γένουε . . . τις δε of *Sophist* 235 B 5-6. This emendation is better than even Diès himself appears to have recognized, for he explains Socrates' reference to his answer as παιδιά (30 E 7) by the rather vague note, "La surprise et la badinage sont probablement dans le tour inattendu de cette conclusion plaisamment différée," whereas, if the emendation is correct, Protarchus might well say καίτοι με ἀποκρινάμενος ἔλαβες since οὐτε ἐστὶ γένουε τις could have been understood as οὐτε ἐστὶ γε οὐτε τις. One consideration, however, suggests caution: what looks like this same troublesome τῆς appears again in 32 A 9 and 52 C 6, where in the former case Diès adopts Ast's improbable substitution, τε, and in the latter Stallbaum's brackets. The second emendation consists in writing <εἶδεσι> after ἀμείκτοις in 32 C 8, apparently in order to make it clear that "il n'est pas encore question ici du mélange plaisir-douleur," an interpretation which is correct but which is equally well assured by placing a comma after ἀμείκτοις and removing the one after ἡδονῆς. In 34 C 1 for the καὶ μνήμας, which Burnet follows Gloël in bracketing, Diès writes οὐ μνήμας. In 34 D 5 Diès writes ὥς for the καὶ of the MSS, which Burnet follows Badham in excising, and in the next line adopts Badham's ἀ for the δ of the MSS. Here, I think, no change is needed, either Diès' or Badham's, save for a period or dash after ζητούμεν: "Ah, but we shall lose, and that too in having found what we are now seeking—we shall lose our perplexity about these very things." The δεύτερος in 59 C 4, which Bury and Burnet bracket after Hermann, Diès emends to περὶ ὅσ', adopting in the following line Badham's συγγενῇ for συγγενές of the MSS.⁵⁹ In 62 B 1 Diès prints ἐκείνοις τοῖς ἄλλοις instead of καὶ τοῖς ἄλλοις. I should suggest καὶ τοῖς ἀληθινοῖς as a more plausible correction; cf. τοῦ ψευδοῦς κανόνος in Socrates' next remarks (B 5). For μανικὰς ἡδονὰς in 63 D 6 Diès writes μανικὰς ὠδῖνας, for which he refers to *Timaeus* 86 C; this, I think, is the best of the many conjectures that have been proposed for this passage. In 66 B 8 Diès changes τέταρτα to τεκμαρτά, where Bury adopted Jackson's οὐδ' for the preceding οὐ on the hypothesis that τέταρτα had arisen from the Δ of this word.

⁵⁹ Bury had suggested that δεύτερος arose from the compendium β which may have been corrupted from an abbreviated περὶ.

This is the sum of Diès' emendations, but a few of the readings which he has chosen demand notice. In the last sentence mentioned above he retains § in 66 C 2; both Bury and Burnet had followed Stallbaum in bracketing it. With either reading, however, the conditional clause begs the question, and what is really wanted is *ἄπειρ τοῦ νοῦ γέ ἐστι μᾶλλον ἢ τῆς ἡδονῆς συγγενῇ*. Since attempts are still being made to "emend" 15 A 6-7,⁶⁰ it is proper to call attention to the fact that Diès retains the reading of the MSS and translates it correctly. His treatment of the following passage, the notorious 15 B 2-8, is not so happy, however, for, though he rightly removes Burnet's mark of interrogation after *ταύτην* (15 B 4),⁶¹ he adopts for *ὁμοι* in the same line the *ὅλοι* which Badham once suggested but later abandoned; the text of this passage, in which all the MSS agree, is perfectly sound, however.⁶² In 25 D-E Diès rejects the transposition which Bury adopted from Jackson and for *δράσαι* of the MSS in D 7 reads Badham's *δράσασαι*; but this is hardly satisfactory, nor can the translation given be readily got from the text that is printed.⁶³ In 39 A 4 Diès returns to the text which Bury printed but did not approve; Diès in his note successfully explains and defends the reading. In 52 D 6-8 he retains *καὶ τὸ ἱκανόν* but, following Jackson, transposes it to the position after *εὐλακρινές*. He translates *τί ποτε χρὴ . . . εἶναι* as "Que devons nous regarder

⁶⁰ Most recently by L. A. Post in his review of Hackforth's *Plato's Examination of Pleasure* (*A. J. P.*, LXVII [1946], p. 380). He wants to insert *τε* after *μετά* and to understand *διαίρεσις* as "division into parties" or "sects" rather than logical analysis! For the "historical" situation concerning diaeresis and the theory of ideas which Plato's sentence reflects cf. Cherniss, *The Riddle of the Early Academy*, pp. 39 ff.

⁶¹ Diès prints a comma here; but no punctuation at all would be preferable, for *εἶναι* in line 4 and *γίγνεσθαι* in line 8 are parallel (*εἶτε διασπασμένην . . . φαίνεται ἂν* being a single parenthesis), both depending upon *δεῖ ἐπιλαμβάνειν* to be supplied after *πῶς* in B 2.

⁶² The position of *ὁμοι* is certainly to be explained as hyperbaton; cf. *Philebus* 12 B 5-6 and especially *Phaedo* 91 C 8 f. and *Theaetetus* 145 D 5-7 (on which cf. Riddell, *Digest*, § 300 [p. 233]).

⁶³ If *τούτων ἀμφοτέρων* (25 D 8) means *πίεσι* and *ἄνωγειν* and *συνοργαζόμενον* here means the same as does this verb in the preceding sentence, *κἀκείνη* must mean *τὸ μεικτόν* (25 B 5); but Protarchus' *ποίας* must refer to *ἀκείνη*, though Socrates' answer to it is a description of *πίεσι*. This is the very situation that made transposition appear necessary; and, though I agree in rejecting the transposition that Bury printed, I think that in Diès' text the contradiction remains unresolved.

comme plus voisin de la vérité?" but $\pi\rho\acute{o}\tau\epsilon\ \delta\lambda\eta\theta\epsilon\iota\alpha\varsigma\ \epsilon\iota\varsigma\alpha\iota$ can mean only "to be in relation to truth," and the simplest way to make sense of the passage is to read lines 6-8 as a single question. Although there are many other passages that invite discussion, it suffices here to say that none of them affects to any important degree the meaning of the dialogue and that on the whole the text here printed is rather more satisfactory than Burnet's.

The introduction to the dialogue is divided into four sections. By far the longest of these is the third, a detailed analysis in 73 pages of "the stages of the discussion." This is preceded by two succinct sections, one on the "external characteristics" of the dialogue and another dealing with its logical continuity. In the first of these Diès emphasizes the preponderance of space devoted to the analysis of pleasures (1024 lines out of a total of 2369), an observation to which he returns in the fourth section on "the import of the *Philebus*," where he concludes that all the themes of the dialogue are arranged about the central theme, which is a moral one, the search for the good of man, and that the very proportions of the different parts justify the traditional subtitle, "concerning pleasure." Closing the first section with the pertinent remark that, despite the scholastic character of the discussion, the characteristics of Socrates here remain what they were in the earlier dialogues, Diès proceeds in the second section to demonstrate that the apparent digressions and ornaments are essential to the central theme and that the logical continuity of the dialogue was purposely obscured by Plato's intention to maintain at all costs the illusion of untrammelled conversation. In the excellent analysis of the dialogue which constitutes the third section a few salient points deserve special mention. It is shown that the two passages on the one and the many and on the limited and the unlimited have not only a methodological or general metaphysical importance but have to do with the very heart of the subject of the *Philebus* and that in the treatment of this subject the only novelty vis à vis the *Phaedrus*, *Sophist*, or *Politicus* is the collection under the term $\acute{\alpha}\nu\rho\omega\pi\omicron\nu$ of individual diversity to oppose it to the unity of the kind. There is a good discussion of the notorious $\gamma\acute{\epsilon}\nu\epsilon\omicron\iota\varsigma\ \epsilon\iota\varsigma\ \omicron\nu\sigma\iota\alpha\varsigma$ of 26 D, showing that this represents no departure of Plato from his constant doc-

trine;⁴⁴ and it is shown that the demonstration of the possible falsity of pleasures integrates all the themes of the analysis of pleasure that we know from the *Republic* or the *Gorgias* but with an extension and new depth adapted to the dimensions of the *Philebus*.

Eighteen pages of the third section are devoted to the possible adversaries against whom the doctrine of pleasure in the *Philebus* is formulated. Diès contends that in opposing the thesis that pleasure is the highest good the *Philebus* is not directed specifically against Eudoxus⁴⁵ any more than it is against Aristippus, and he argues strongly against the hypothesis that the occasion of the dialogue was a controversy between Eudoxus and Speusippus. As to the thesis that the so-called pleasures are simply cessation of pain Diès, though not denying that Speusippus may have maintained it, objects to understanding its use in the *Philebus* as a specific reference to Speusippus and to ascribing the course of the argument in 44 D ff., even the first argument, to the anti-hedonistic group. He contends that it is quite unnatural to take μάλα δεινόντε λεγόμενον τὰ περὶ φύσιν in 44 B as a reference to Speusippus on the strength of his Ὁμοία⁴⁶ and that the δυσχέρεια and δυσχεράσματα of 44 C-D accord less with the tradition of Speusippus than with that of Xenocrates. Moreover, Socrates' reference to these anti-hedonists as μάρτυς whose inspiration he will use (44 C) shows, he maintains, that what follows cannot be regarded as their own arguments but only as an exegesis of Plato's.⁴⁷ Finally, he quite rightly asserts that 53 C 4-7 itself shows that by the κομψοί who define pleasure as γένεσις Socrates cannot mean the same people as those referred to

⁴⁴ In this connection Diès might well have mentioned *Symposium* 205 B 8 ff. which corresponds exactly to *Sophist* 219 B 4-6, in which the "new" attitude of the *Philebus* is often supposed to be expressed.

⁴⁵ Cf. also H. Karpp, *Untersuchungen zur Philosophie des Eudoxos von Knidos*, pp. 23-7, where the hypothesis of any specific relation between Eudoxus and the *Philebus* is also opposed.

⁴⁶ If the suggestion as to the meaning of this phrase on page 227 *supra* is correct, "interest in natural science" is not to be considered a factor in the identification.

⁴⁷ There is an unfortunate error in note 1 on p. lx where Diès cites in support, besides 44 C, a second passage, 51 A: μάρτυς καταχρῶμαι. In his text, however, he, like Burnet, prints without variant in this passage μάρτυς καταχρῶμαι.

in 44 B-D and 51 A. Such an identification has been made only because Aristotle in criticizing the anti-hedonists criticizes among their arguments the one which defines pleasure as genesis; but it is natural for Aristotle, Diès believes, in order to refute this definition to attack the *Philebus* and those who drew their arguments from it,⁶⁸ since the *Philebus* adopts this definition with gratitude and employs it to destroy the hedonistic thesis. *Eth. Nic.* 1153 A 12-17 proves that the identification of pleasure and γένεσις was made by hedonists, and Diès concludes that the formula of which the *Philebus* makes use was furnished by the partisans of pleasure and that the gratitude which Plato expresses for it (54 D 6) is a characteristic bit of irony.⁶⁹

In the fourth section of the introduction Diès argues that all of the four "kinds," πέρας, ἄπειρον, μικτόν, and αἰρία, are meant to be ideas. With regard to the μικτόν he admits that what is produced or engendered is not an intelligible entity, but he insists that the μικτόν qua class is so. This notion, which was held by C. Ritter (*Platon*, II, p. 183) and M. Gentile (*La dottrina platonica delle idee numeri e Aristotele*, p. 39) also, seems to me to be quite mistaken. As Grube has said (*Plato's Thought*, p. 303), there is not a shadow of a hint that μικτόν anywhere in the *Philebus* refers to anything but the world of phenomena; and it would, moreover, be very strange for Plato, if he did think of μικτόν itself as an idea, to call the ideas ἀμεικτότατα ἔχοντα as he does in 59 C.⁷⁰ It is still less credible that he meant ἄπειρον to be an idea, for indeterminateness is the very negation of the ideas and in 16 D-E where he uses the oxymoron,

⁶⁸ Diès points out the confusion involved in Taylor's notion that the *Philebus* aims at Speusippus and his group, on the one hand, and that, on the other hand, Aristotle in *Eth. Nic.* VII and X is criticizing not the *Philebus* but the use made of it by the anti-hedonists of the Academy.

⁶⁹ This is the interpretation of Burnet, *The Ethics of Aristotle*, p. 334 and Grant, *The Ethics of Aristotle*, I, pp. 176-7. Diès conclusively refutes the thesis revived by Mauersberger, according to which the κομφοί of the *Philebus* are Megarians and identical with the εἰδῶν φίλοι of the *Sophist*.

⁷⁰ One might object that Plato certainly held to an "intercommunion" of ideas and that in the *Sophist* he refers to this intercommunion by the terms μίξις and μικτόν (*Sophist* 253 B-C, 254 D); but this very fact proves that when in the *Philebus* he used the term μικτόν he could not have been thinking of an ideal relation or entity, for otherwise he could not have called the ideas ἀμεικτότατα ἔχοντα.

τὴν τοῦ ἀπείρου ἰδέαν, he represents τὸ ἀπειρον as the indeterminateness of particularity at the opposite pole to the unity of each idea. As pleasure is called ἀμακτος because it has no πέρας but admits τὸ μᾶλλον καὶ ἥττον (27 E), so when the ideas are called ἀμεικτότατα ἔχοντα it must be because they admit no ἀπειρον, no indeterminateness of any kind.⁷¹ At any rate Diès properly stresses the fact that the immediate purpose of the fourfold classification is to explain the production of sensible realities; one should perhaps say rather "phenomenal objects and events," since the mixed life belongs to the third class (27 D).

The introduction is concluded with an excellent essay in which it is shown that, whatever the external occasion of the composition of the *Philebus* may have been,⁷² the subject itself and its treatment—even to the preponderant place given to the analysis of pleasure—grow out of the inner necessity of Plato's thought, are foreshadowed in the *Republic*, and are parallel to the treatment of other problems in the *Sophist*, the *Politicus*, and the *Timaeus*. Here Professor Diès demonstrates not only the fundamental unity of Plato's psychophysiology of pleasure in the *Republic*, *Philebus*, *Timaeus*, and *Laws*; he demonstrates his own sensitivity to the much more delicate constancy of the rhythm of Platonic ethics.⁷³

⁷¹ In 15 B 5 ἀπειρα is linked with γιγνόμενα, in 24 B 8 with ἀρετῇ; in 31 A 9-10 the γένος of the ἀπειρον is the class that in and of itself has not and never will have beginning, middle, or end. These characteristics are the very contradictories of the ideas. Cf. further *Aristotle on Plato* (see note 8 *supra*), p. 169, n. 172, n. 192 (on p. 287).

⁷² Diès does not engage in the futile pretense of fixing an exact date for the composition of the *Philebus*. He inclines to the belief that *Timaeus* 64 D-65 B is a later résumé of the exposition in the *Philebus* to which 65 A adds a more precise explanation, a point already made, however, in *Republic* 584 B; but he leaves open the possibility that Plato may have worked on the *Philebus* and the *Timaeus* simultaneously.

⁷³ Most of the few typographical errors that have escaped correction can be easily set right by the reader. In n. 1 on p. 24, however, 72 C should be 12 C; and in n. 1 on p. 89 the references 54 A and 54 C in the first line should be 64 A and 64 C respectively, while "cinq fois" should presumably be "quatre fois." In n. 1 on p. 28 Diès, by a slip which is reminiscent of one made by Aristotle, calls the interlocutor of Theaetetus in the *Sophist* Socrates instead of the Eleatic Stranger.

To the vitality of Platonic scholarship in Holland also during the occupation witness is borne by the dissertation of Willem Van der Wielen on the idea-numbers.¹⁴ The last chapter of this book is a concise résumé and critique of the most important earlier attempts to explain the nature of the idea-numbers, which on the strength of Aristotle's criticism and certain fragments of later evidence have by most modern scholars come to be regarded as Plato's "later theory of ideas." Van der Wielen's own conclusion¹⁵ is that Plato never fully worked out a "doctrine of idea-numbers" but simply established certain fundamental propositions and by means of several examples indicated their possible application. These propositions were that the ideas of sensible objects are numbers, between which and the sensibles there exist separate mathematical numbers, and that as ideas the idea-numbers do not consist of units and are not quantities but are each unique and have each a fixed position in the number-series. To elucidate these propositions Plato described a generation of the idea-numbers in which he assumed two principles, "the one" and "the great-and-small," the latter being an *ἀνυπόστατον* such as is described in the *Philebus* and the former being closely related to the *τίμας* in that dialogue (pp. 195-6). As examples of the application of these propositions he suggested—once more merely for the sake of elucidation—the derivation of the line, plane, and solid from the idea-numbers 2, 3, and 4, with which and with "the one" he also connected the psychical functions. These suggested applications as well as the limitation of the number-series to the "perfect number," 10, were given, Van der Wielen conjectures, in the latter part of the lecture "On the Good" which Plato cast into the form of a "myth" and possibly put into the mouth of an imaginary Pythagorean after he had completed the rigorously logical part of the lecture which dealt exclusively with the nature of the idea-numbers (pp. 194, 168, 157-8).

This suggestion concerning the scope and form of the lecture

¹⁴ Willem Van der Wielen, *De Ideegetallen van Plato* (Academisch Proefschrift ter Verkrijging van den Graad van Doctor in de Letteren en Wijsbegeerte aan de Universiteit van Amsterdam [Amsterdam, D. B. Centen's Uitgevers-Maatschappij N. V., 1941]), pp. xii + 270.

¹⁵ An epitome in Latin embodying the author's conclusions is printed on pp. 256-8.

"On the Good"¹⁶ is avowedly an hypothesis set up to account for certain apparent inconsistencies in Aristotle's testimony, some of which, however, with the consequent difficulties for the reconstruction of Plato's meaning are chargeable neither to Plato nor to Aristotle but are simply the result of mistaking the intention of Aristotle's references. For example, much of Chapters IX-XI, which deal with Plato's supposed derivation of the line, plane, and solid from the idea-numbers 2, 3, and 4 and with his connection of *νοῦς*, *ἐπιστήμη*, *δόξα*, and *αἰσθήσεις* with these idea-numbers and "the one," depends upon the assumption that *De Anima* 404 B 18-27 is a circumstantial report of Plato's doctrine, whereas this passage was certainly meant to refer not to Plato at all but to Xenocrates.¹⁷ Theophrastus' *Metaphysics* 6 A 23-

¹⁶ Van der Wielen (p. 2) is right in taking τὴν περὶ τἀγαθοῦ ἀκρόασιν of Aristoxenus' *Harmonica*, II, 30 to mean that it was a single lecture. Morrow (*Philosophical Review*, LV [1946], p. 191) strangely argues that the word ἀκρόασις "certainly suggests more than a single lecture" because Aristotle's *Physics*, the Greek title of which is φυσικὴ ἀκρόασις, could not conceivably have been delivered as one lecture; but this title was given to the *Physics* long after the time of Aristotle, whose use of the word in *Poetics* 1459 B 21-22 (τραγῳδιῶν τῶν εἰς μίαν ἀκρόασιν τιθεμένων) proves that for him and his contemporaries it meant something that can be heard at a single sitting. That Alexander refers several times to the second book of Aristotle's publication does not argue for more than one lecture, for we do not know what the length of the books or the length of the lecture may have been (*Metaphysics* Z, H, and Θ together are much shorter than Aeschines' speech *Against Ctesiphon* and not nearly three-quarters of the length of Demosthenes' *On the Crown*) or whether Aristotle in his publication may not have included comments of his own besides the mere report of the lecture. Van der Wielen (p. 8) speaks of "the three books περὶ τἀγαθοῦ," apparently adopting the notice in the list of Diogenes Laertius (V, 22) in preference to the περὶ τἀγαθοῦ δ of Hesychius and the περὶ τἀγαθοῦ ε of Ptolemaeus (cf. Rose, *Aristotelis Fragmenta*, p. 11, # 20 and p. 20, # 8); but the discrepancy in the three lists deprives all of them of authority in this matter. In any case, the remarks of Aristoxenus certainly imply that the lecture "On the Good" was a single one and moreover that it was a "public lecture."

¹⁷ For demonstration of this cf. *Aristotle on Plato* (see note 8 *supra*), pp. 565-79. Van der Wielen is aware (p. 8) that Simplicius and Philoponus speak without knowledge when they refer to περὶ τἀγαθοῦ the phrase, ἐν τοῖς περὶ φιλοσοφίας λεγόμενοις (*De Anima* 404 B 19); but he takes these words to refer to "Plato's own lectures to which the lecture 'On the Good' must also have belonged" (pp. 152, 160), and he never

B 5 too, which is treated by Van der Wielen as an almost equally important source in this section of his work (pp. 139-42, 160, 177-8, 184-7) and which he says (pp. 140-1) certainly refers to Plato because it is not clear who else could be meant, since Speusippus and Xenocrates are in 6 B 6-7 distinguished by name from the philosophers of 6 A 23-B 5, is by the same token certainly not a specific reference to Plato and his doctrine, for in 6 B 11-15 Plato is by name distinguished from the persons meant in 6 A 23-B 5 just exactly as much as Speusippus, Xenocrates, and Hestiaeus are in 6 B 5-10 distinguished from them.¹⁸

Van der Wielen would probably not be displeased to find that there is no evidence at all to justify the ascription to Plato of any of the content that he has assigned to his hypothetical

mentions the possibility that they mean Aristotle's own dialogue *repl philosophias* or the fact that they were so understood by Themistius (*De An.*, p. 11, 18) or Themistius' statement (*De An.*, pp. 11, 37-12, 1) that the doctrine of 404 B 18-21 was to be found in the *repl filosofias* of Xenocrates. This doctrine coincides with that which is reported in *Metaphysics* 1090 B 20-32; but Van der Wielen, though admitting (p. 151) that the latter refers to Xenocrates, says that the use of the numbers as there reported may have been Plato's theory as well, a gratuitous assumption which is forbidden by the clear distinction made between this and the passage on Plato which follows it (1090 B 32-1091 A 3). The same distinction, though Van der Wielen does not mention it in his treatment of *Metaphysics* 1001 B 19-25 (p. 150), occurs in 1001 B 24-25, where as an alternative to *ἐξ ἐνός καὶ τούτου*, which certainly refers to Plato (cf. *Aristotle on Plato*, p. 480), is given *ἐξ ἀριθμοῦ τινός καὶ τούτου*, which agreeing with 1090 B 20-32 must be a reference to Xenocrates.

¹⁸ Speusippus in fact is distinguished from them in name only, for he and *οἱ ἄλλοι* of 6 B 6 are said to have proceeded in the way just described in 6 A 23-B 5. To all these "others" Xenocrates, Hestiaeus, and Plato are named as the only exceptions, and the *οἱ δὲ* (6 B 15) named by way of contrast once more after the sentence concerning Plato must be identified with these "others" (cf. *οὐχ ὅτι ἀπὸ ἀρχῆς καὶ τῶν πρώτων μόνον* in 6 B 10-11 distinguishing the procedure of Hestiaeus from theirs). W. D. Ross (Ross and Forbes, *Theophrastus: Metaphysics*, p. 54) also says nothing of all this and because of the distinction of Speusippus and Xenocrates in 6 B 6-7 assumes that the preceding lines refer to "Plato and his orthodox followers." Ross further compares this passage of Theophrastus with *Metaphysics* 1084 A 32-36, and Van der Wielen contends (pp. 177-8) that the two passages agree and complement each other; but there is strong independent evidence that 1084 A 32-37 was not meant to refer to Plato either (see note 86 *infra*).

"myth" in the lecture "On the Good," for his own opinion of these speculations after he has "reconstructed" them is that, had not such an authority as Aristotle unmistakably ascribed them to Plato, one would be inclined to think them wanton extensions of some Platonist who had understood very little of his master (pp. 167-8). Even in assuming that they are Plato's, he cannot believe that Plato attached any great importance to them; and his own really serious concern is with what he considers to have been the serious part of Plato's lecture, the nature of the idea-numbers themselves and their "derivation from the principles." This is the subject of the first eight chapters of the book.

He begins his investigation with a study of the meaning of the word ἀριθμός in the time of Plato and Aristotle. This in current mathematical usage was "natural number greater than one" (p. 17); and to Aristotle the word had this meaning also, his theory of abstraction, which Van der Wielen thinks he erroneously extended from the facts of arithmetic to those of geometry (pp. 38-40), allowing him to assume that the only kind of number necessary is denominative number so that μοναδικὸς ἀριθμός for him is always ἀριθμός μονάδων, a sum of perceptible objects simply regarded as indivisible units (pp. 40-1). In Plato's dialogues, however, Van der Wielen finds, besides a) "sensible numbers," b) numbers which are assumed to exist entirely apart from perceptible objects and to consist of units which are eternal, indivisible, and exactly like one another (pp. 20-30)¹⁹ and c) in *Phaedo* 96 D-97 B and 101 B-C ideas of

¹⁹ For this second kind of number he cites *Philebus* 56 D-57 A where Socrates distinguishes the ἀριθμητικὴ τῶν φιλοσοφούντων from that of the generality by the fact that the former assumes μονάδα μονάδοι ἐκάστης τῶν μυρίων μηδεμίαν ἄλλην ἄλλης διαφέρουσιν (56 E 1-3), *Republic* 525 C-526 B where αὐτοὶ οἱ ἀριθμοὶ that can be grasped only by thought as distinguished from ὁρατὰ ἢ ἄλλα σώματα ἔχοντες ἀριθμοὶ involve units exactly alike and indivisible, and *Theaetetus* 195 E-196 B, 198 A-199 C where Socrates discusses with Theaetetus the possibility of mistaking the αὐτὰ πέντε καὶ ἑπτα which are in the mind for eleven instead of twelve. These passages of the *Theaetetus*, however, are hypotheses in which the "numbers" concerned are μνημεῖα in the mind (196 A 3) exactly parallel to the "letters" in the mind of the literate reader (199 A 1-2), and the hypotheses are set up in a discussion from which all mention of the ideas is purposely excluded and are finally rejected as failing to account for knowledge and error; consequently one cannot

numbers which are above both a) and b), being the ultimate cause of the existence of both of these kinds of number, and which, since they are *ideas*, must each be eternal, immutable, and without parts, i. e. not consisting of units in any sense (pp. 30-3). With b), the second class above, he identifies the "inter-

assume that the elements of these hypotheses represent Plato's conception of number and certainly cannot conclude from them, as Van der Wielen does (p. 30), that Plato assumed the existence of *ἀριθμοὶ αὐτοὶ* each consisting of indivisible and identical units, these units of two *ἀριθμοὶ αὐτοὶ* being added together to produce as their sum another *ἀριθμὸς αὐτός*. Moreover, in these passages of the *Theaetetus* nothing is said of constituent units of numbers or their addition or combination; in 198 C the process by which one discovers "how much a number is" is called "counting" (*ἀριθμεῖν*), which may be a hint that what is ordinarily called "the addition of 5 to 7" is really just the process of counting to the fifth place after the seventh place in the number-series. In any case, there is even less reason to take the process described in the *Theaetetus* as evidence for a separate kind of Platonic "mathematical number" than there is to draw the same inference for Aristotle from his distinction of *ἀριθμὸς ὃ ἀριθμοῦμεν* (*Physics* 219 B 6-7) which Van der Wielen (p. 42) will not allow to indicate another kind of number distinct from the denominative. In this connection Van der Wielen might well have noticed the reference of Alexander (*Metaph.*, p. 78, 16-17) to an Academic argument that the correlate of *ἀριθμὸς* must be real and therefore must be *ideas* (cf. *Aristotle on Plato*, p. 497).

In the passage of the *Republic* the phrases *αὐτοὶ οἱ ἀριθμοὶ* and *αὐτὸ τὸ ἐν* (525 D 6-E 1) should indicate that the numbers referred to are ideas of number; but just as Adam sought to avoid this interpretation (cf. against him Shorey, *Class. Phil.*, XXII [1927], pp. 213-18 and R. Robinson, *Plato's Earlier Dialectic*, p. 204 [see page 145 and note 44 *supra*]) so Van der Wielen does also, his argument being that Plato is here talking of logistic which deals with numbers that have quantity, i. e. have parts, and so cannot be ideas. This argument is not supported by the text, however, where the procedure of which *αὐτοὶ οἱ ἀριθμοὶ* are said to be the object is *διαλέγεσθαι* (525 B 6-7) and where nothing is said about constituent units of these numbers, 526 A 1-7 being rather a reference to the unity of each ideal number (cf. *Aristotle on Plato*, p. 518). The passage of the *Philebus*, which Van der Wielen seeks to explain by the passage of the *Republic*, proves conclusively against him that Plato is speaking of ideas of number and not of another class different from these and from "concrete" numbers, for the *ἀριθμητικὴ τῶν φιλοσοφούντων* is linked with *ἡ κατὰ φιλοσοφίαν γεωμετρία*, both being distinguished from *λογιστικὴ καὶ μετρητικὴ ἡ κατὰ τεκτονικὴν καὶ κατ' ἐμπορικὴν* (*Philebus* 56 E 7-57 A 1) and the objects of this philosophical mensuration or geometry are, even by Van der Wielen's admission in another context (p. 144), just ideas (*Philebus* 62 A-B). The close con-

mediate mathematical" which Aristotle ascribes to Plato (e. g. *Metaphysics* 987 B 14-18), although he stops short of asserting that this intermediate existence of mathematical objects appears anywhere in the dialogues, admitting that in *Republic* 509 D-511 E it is merely the *method* of mathematics that is placed between νοῦς and δόξα (p. 50). What Aristotle calls εἰδητικὸς ἀριθμὸς (e. g. *Metaphysics* 1090 B 32-36) is c), the third class above (p. 51); and from Aristotle's remarks Van der Wielen concludes that Plato made all ideas numbers (pp. 53-7), that is that he assimilated all the ideas to this third class of numbers which in the dialogues are just the ideas of numbers (pp. 58-9). These idea-numbers,⁸⁰ Van der Wielen then explains (p. 60), are *qua* ideas separate from sensible objects and do not consist of units; and from Aristotle's direct statements it appears that they are ἀσύμβλητοι or incomparable with one another, a characteristic which follows from their being ideas (cf. p. 65), that they stand to one another as prior and posterior, i. e. each has a fixed position in an ordered series (cf. pp. 69-70), and that they have the natural order 2, 3, 4, etc., each being a unit and not the sum of the number before it plus one (pp. 71-3).

It was, Van der Wielen believes. (pp. 96-7), to make credible

section of the philosophical treatment of measures and numbers (57 C 10-57 D 2) and the repeated statement that there are two kinds of arithmetic and mensuration (57 D 6-8, cf. 57 A 3-4) make it certain that so far as the *Philebus* is concerned there are only "perceptible" or "concrete" numbers and ideas of number and that the latter of these two kinds are the objects of "theoretical mathematics." Neither did the author of the *Epinomis* recognize any kind of number besides αἰετὶ ἀριθμοὶ and ἀριθμοὶ σώματα ἔχοντες (990 C 6) nor the author of the *Seventh Epistle* any mathematical entities besides ideas and their perceptible εἰδωλα (342 A-D).

⁸⁰ This is the modern conventional term (Van der Wielen's "Ideegetallen") for the ideas of the so-called "later" theory, all of which are identified with numbers. In contrast thereto "ideal numbers" means the ideas of number which in the theory of the Platonic dialogues are simply ideas like the ideas of anything else. According to Van der Wielen (p. 240) of all the terms used by Aristotle εἰδητικὸς ἀριθμὸς agrees best with "idea-number" (ideegetal) in the sense above; but on the contrary it could of itself equally well mean "ideal number," and in the three passages in which it occurs (*Metaphysics* 1086 A 5, 1088 B 34, 1090 B 35) there is nothing to indicate that it means anything else (cf. J. Cook Wilson, *C.R.*, XVIII [1904], p. 257; Ross, *Aristotle's Metaphysics*, II, p. 459 ad 1086 A 4).

the existence and to show the structure of these numbers, so different from anything currently understood as "number," that Plato, in the same way as mathematicians "construct" a figure in order to show its nature, gave his audience a graphic representation of what Aristotle refers to as the generation of the idea-numbers from "the one" or "the equal" as form and "the great and small" or "the unequal" as matter; and this graphic representation Van der Wielen tries to reconstruct, taking his inspiration from a fragment of Porphyry's commentary on the *Philebus* which is quoted by Simplicius⁸¹ and from Aristotle's *Physics* 206 B 3-29, in which passages he professes to detect a vestige of Plato's "figure" (pp. 120-3). He supposes (pp. 127-30) that Plato set out a line $\Gamma\Delta$,⁸² along which moves a point Π_n . As Π_n changes, the ratio $\Gamma\Delta \cdot \Pi_n\Delta$ in its constant change represents the $\acute{\alpha}\rho\epsilon\tau\omicron\nu$, which as long as $\Gamma\Pi_n$ and $\Pi_n\Delta$ are changing and unequal can also be called $\tau\acute{o}$ $\acute{\alpha}\nu\iota\sigma\tau\omicron\nu$ or $\tau\acute{o}$ $\acute{\alpha}\nu\iota\sigma\alpha$. When the point divides $\Gamma\Delta$ in half at Π_1 , the unequals are equalized, a $\pi\acute{\epsilon}\rho\alpha\varsigma$ has been imposed upon the $\acute{\alpha}\rho\epsilon\tau\omicron\nu$, and $\Gamma\Delta \cdot \Pi_1\Delta = 2 \cdot 1$ which represents the idea-number 2. If now $\Pi_1\Delta$, regarded as the $\acute{\alpha}\rho\epsilon\tau\omicron\nu$, be similarly divided in half at Π_2 , the ratio $\Gamma\Delta \cdot \Pi_2\Delta = 4 \cdot 1$, the idea-number 4; and, when the $\acute{\alpha}\rho\epsilon\tau\omicron\nu$ $\Pi_2\Delta$ is divided at the mid-point Π_3 , the ratio $\Gamma\Delta \cdot \Pi_3\Delta = 8 \cdot 1$, the idea-number 8. In this way all the powers of 2 can be produced, but *only* the powers of 2; this limitation does not, however, affect the universality of the material factor in which every number is in principle included, but it is the necessary result of the choice of the form "one," i. e. the ratio 1·1 (pp. 129-30).

This limitation, Van der Wielen argues (pp. 130-1, cf. p. 120), is in agreement with what Aristotle says of the generation of idea-numbers in *Metaphysics* 987 B 33-988 A 1, 1091 A 9-12,

⁸¹ Simplicius, *Phys.*, pp. 453, 31-454, 16. Of this passage Van der Wielen uses only pp. 453, 31-454, 7; the subsequent lines he omits, saying that it is not clear whether they give part of an old tradition that goes back to Plato or an interpretation of Plato that was given by Aristotle or someone else (p. 121). There is no justification in the text for such a distinction; Simplicius gives the whole passage as a continuous quotation from the commentary on the *Philebus*, repeating at the end (p. 454, 17-19) what he had said at the beginning (p. 453, 30-31), that Porphyry had written this professing to interpret the enigmatic statements of the $\pi\epsilon\pi\lambda\ \tau\acute{\alpha}\gamma\alpha\theta\omicron\upsilon$.

⁸² Γ Π_1 Π_2 Π_3 Δ

1091 A 23-25. In the third of these passages Aristotle does state that "they say that there is no generation of odd number"; but one cannot simply identify the subject of *φασιν* in line 23 with the *τινες* of line 24 which refers to Plato,³³ and moreover to *τινες* is ascribed the construction of "even number" by "equalization" of "the great and small," not just of the powers of 2. In 1091 A 10-12 he does say that "the great and the small" cannot generate any number save that which arises from the continuous duplication of one, but that this is his own conclusion *against* the Platonists is proved by 1091 A 9-10 which implies that they did try to derive by "torture" of this principle the other numbers also. The evidence of the first of the three passages depends upon the correct interpretation of the notorious phrase *διὰ τὸ τοὺς ἀριθμοὺς ἔξω τῶν πρώτων εὐφυνῶς ἐξ αὐτῆς γεννᾶσθαι* (987 B 33-34). Van der Wielen has to assume that this denies any attempt to generate the *πρῶτοι*, whereas it naturally implies rather that they were generated though not *εὐφυνῶς* from the dyad. He rightly adopts "prime numbers" as the only admissible interpretation for *πρῶτοι* here; but, in order to interpret the exception as adequate to the generation of the powers of 2 which he has reconstructed, he argues that for anyone who knows this method of generation the statement that the prime numbers are not generated implies at once that neither is any number that has a prime number as a factor. The possible objection that "except the prime numbers" ought also to include the number 2, which Aristotle regarded as prime, causes him to assume further that *ἔξω τῶν πρώτων* is Platonic terminology and that Plato may not have regarded 2 as prime. This assumption, however, is without support of evidence, improbable, and unnecessary.³⁴

³³ That *τινες* in 1091 A 24 is meant to refer to Plato, at least among others, is proved by 1081 A 23-25, as Van der Wielen says (p. 92); but Van der Wielen also has recognized (pp. 92-96) that 1091 A 23-29 as a whole is Aristotle's attempt to refute Xenocrates' objection to the literal interpretation of the "generation" of number.

³⁴ The fact that Nicomachus regarded prime number as a class of odd number is hardly a reason for imputing this notion to Plato as Van der Wielen does (p. 131); it would have been more pertinent to observe that Speusippus (*frag.* 4, lines 25-27, Lang) as well as Aristotle takes it for granted that 2 is prime. Nor to judge by the context of *Topics* 157 A 39-B 1 would Aristotle have considered it legitimate to object to his *ἔξω τῶν πρώτων* as a general limitation because there is one, though only one, prime number that is generated *εὐφυνῶς*.

The whole of 987 B 29-988 A 1 is Aristotle's interpretation of the motivation of Platonic theory (cf. *διὰ τὴν ἐν τοῖς λόγοις . . . σκέψιν* in lines 30-31 with *διὰ τὸ . . . γενῆσθαι*), and *ἐξω τῶν πρώτων* is therefore most probably his own limitation of what he considers to be the capabilities of the dyad; if this were not so but the limitation were Plato's own, the words would be still more embarrassing for Van der Wielen's hypothesis, according to which it is not the nature of the dyad but only the form "one" (1·1) that limits to 2 and its powers the numbers generated (pp. 129-30). There is a still more important reason for questioning Van der Wielen's compound assumption. Had *ἐξω τῶν πρώτων* been technical terminology in the Platonic theory of numbers, it should have appeared in the *περὶ τὰγαθοῦ*²⁵ in this connection, and in its context there its meaning would probably have been clearer than it is in this passage of the *Metaphysics*. Now, of all the ancient commentators the only one who probably saw the *περὶ τὰγαθοῦ* is Alexander of Aphrodisias (cf. *Aristotle on Plato*, note 77). Alexander in commenting on 987 B 34 gives no such interpretation as that of Van der Wielen but finds himself constrained to say that Aristotle here uses *πρώτων* for *περιττῶν* (*Metaph.*, p. 57, 12-16 and 22-28) and that too although he has just cited the *περὶ τὰγαθοῦ* (p. 56, 35); and his expression would indicate that he did not find *ἐξω τῶν πρώτων* used even in this sense in the *περὶ τὰγαθοῦ* (cf. p. 57, 14-15: *νῦν μὲν οὖν* and p. 57, 22: *νῦν μέντοι*).

What is still more important, Alexander where he cites the *περὶ τὰγαθοῦ* for the Platonic principles of number never mentions such a scheme or figure as that which in the fragment of Porphyry has inspired Van der Wielen's hypothesis. Inasmuch as the rest of Porphyry's fragment, which is omitted by Van der Wielen (Simplicius, *Phys.*, p. 454, 8-16; see note 81 *supra*), reads like a résumé of Alexander's interpretation of the dyad in the passage which follows (Simplicius, *Phys.*, p. 454, 28 ff.; cf.

²⁵ Van der Wielen (pp. 2-3) calls A, chap. 6 (987 A 29-988 A 17) the only inviolate, continuous report of the doctrine that Plato set forth in his lecture, "On the Good." Some of the chapter, of course, cannot have anything to do with the lecture or Aristotle's report of it, e.g. 987 A 29-B 10; but Van der Wielen does not consider the questions in which the whole chapter is involved by the relation of this first part to 1078 B 9-32 and 1086 A 37-B 10 (cf. *Aristotle on Plato*, pp. 189-98).

also p. 453, 33-35 [Porphyry] and p. 455, 1-2 [Alexander]), a passage which purports to be based upon the *περὶ τὰ γὰθού* and in which there is no suggestion of Porphyry's figure, Porphyry's use of this figure cannot be taken as evidence of its appearance in the *περὶ τὰ γὰθού* but is more probably his own adaptation of the passage in Aristotle's *Physics* (206 B 3-29). Aristotle there employs a similar figure to explain his own doctrine of the potentially infinite by division and concomitantly infinite by addition and at the end says that Plato also made the infinities two (i. e. τὸ μέγα καὶ τὸ μικρόν, cf. 203 A 15-16) for the reason that both increasing and diminishing progressions appear to have no limit. This interpretation of "the great and small" is for the particular purposes of his own argument here, just as in 187 A 16-20 and 189 A 8 he insists that it is a pair of contraries but in 192 A 6-12 and *Metaphysics* 1087 B 9-12 that it is a unity; but, the validity of this *ad hoc* interpretation aside, it is not with "the great and small" but with the exposition of his own doctrine that his use of the figure is connected. Nor can he be said to connect either the figure or this interpretation of "the great and small" with Platonic number-theory, for he objects (206 B 30-33) that Plato made no use of the two infinities, since in numbers he made the unit the minimum and ten the maximum. This last is probably a false combination of Aristotle's; but, if we are to suppose that it does refer to idea-numbers and is a correct report,⁸⁶ it involves Van der Wielen's

⁸⁶ Van der Wielen assumes that idea-numbers are meant (p. 127) and takes the statement seriously enough to use it as proof that Plato must be among those referred to by *ὅτε δὲ ὅς μέχρι τῆς δεκάδος ἀρισμέτων* in *Metaphysics* 1073 A 18-21 (pp. 55-6) and those who in 1084 A 32-37 are said to generate the void, proportion, the odd, etc. within the decad (pp. 177-8). He finally (pp. 193-5) attempts to account for the assumed limitation on the ground that 10 is just the sum of the one and the ideas 2, 3, and 4, which in *De Anima* 404 B 18-27 are said to constitute *ἐντὸς τοῦ ἵψος* (by Van der Wielen [pp. 161-3] mistakenly identified with the model ἵψος of the *Timaeus* and interpreted as the complete system of all the ideas [cf. *Aristotle on Plato*, pp. 575-8]); but, recognizing that this is contrary to the essential character of idea-numbers as *ἀσύμμετροι*, he supposes that it was all part of the myth which he imagines Plato at the end of the lecture put into the mouth of a Pythagorean to whom the tetraktys would be appropriate.

De Anima 404 B 18-27, however, refers not to Plato but to Xenocrates (see note 77 *supra*). Moreover, there is a passage of Aëtius (I, 3, 8 =

hypothesis in further difficulty since 10, not being a power of 2, could not have been generated according to his scheme.

Moreover, in commenting on "the generation of the numbers from the dyad" in 987 B 33-988 A 1 Alexander says (*Metaph.*, p. 57, 4-11) that 2 was generated from the dyad and one, 4 from

Doa. Graeci, pp. 280-3) in which are combined and ascribed to Pythagoras the doctrines of the monad and indefinite dyad, of the limitation of number to 10, of the tetraktys, and of the identification of the monad, 2, 3, and 4 with *εὐς*, *ἐπιστήμη*, *δόξα*, and *αἰσθησις*; since peculiarly Xenocratean doctrine is elsewhere in Aëtius (IV, 2, 3 and 4) ascribed to Pythagoras as well as to Xenocrates, it is probable that this passage derives ultimately from a book of Xenocrates. Speusippus also (*frag.* 4) considered 10, the sum of 1, 2, 3, and 4, to be the perfect number and the *πυθμήν* of all later numbers. It is possible therefore that Aristotle when he refers to those who limit number to the decad may have in mind Xenocrates or Speusippus or other Platonists rather than Plato himself or may be combining in his critique elements of several different Platonistic theories. That some such combination is involved appears from *Metaphysics* 1073 A 14-22 where he complains that the theory of ideas contains no special observation concerning the number of real entities. His supporting remark that those who say that the ideas are numbers speak of numbers sometimes as infinite and sometimes as limited to the decad refers not, as Van der Wielen assumes, to two distinct theories but to all these people as a single group and to their different statements about numbers (not about idea-numbers as such) in different contexts and at different times. Van der Wielen neglects to mention that earlier in this same book (1070 A 18-19) Aristotle ascribes to Plato the doctrine that there are as many ideas as there are natural classes. After having argued in 1084 A 2-10 that separately existing number cannot be infinite, Aristotle undertakes to prove that it cannot be finite either (1084 A 10-B 2) and for this purpose assumes that number extends only to the decad "as some say" (1084 A 12-13). Even if he intends to include Plato among these "some," it would not follow that all or any of the specific doctrines referred to in the subsequent argument must have been his. That of 1084 A 32-37 certainly should not be assigned to him—and least of all by Van der Wielen, for it generated odd number within the decad and identified the odd and one. This treatment of the odd is that which is mentioned in 1083 B 28-30, a passage which Van der Wielen insists (p. 134) cannot refer to Plato, who according to his hypothesis did not try to generate the odd numbers. This hypothesis aside, however, the treatment of the one described in these passages is, as Ross has said (*Metaphysics*, I, p. lxiii), typical of Xenocrates' confusion of ideal and mathematical number; and the assignment of the doctrine to Xenocrates is supported by the fact that he is known to have called the monad *περιττόν* (*frag.* 15). Moreover, 1084 A 32-37 is a continuation of 1084 A 29-32, lines

the dyad and 2, 6 from the dyad and 3, and so on. This is the procedure that Aristotle describes in *Metaphysics* 1081 B 21-22, 1082 A 13-15, and 1082 A 28-36 where he says that the numbers 4 and 8 are produced by the indefinite dyad and the numbers 2 and 4 respectively. Van der Wielen, recognizing that this evidence of Aristotle's, if admitted, would be fatal for his hypothesis (pp. 132-3), insists that this method of generation cannot have been Plato's but must have originated with Aristotle himself or some other Platonist. His only serious argument to support this contention is that in chapter 6 of Book A the one is said to have been the form of the idea-numbers generally. In the same chapter, however, Aristotle also objects (988 A 2-4) that in this theory "the form generates once only." This criticism, Van der Wielen says, is a misinterpretation of Plato's meaning. It is, nevertheless, an interpretation which agrees perfectly with the characteristics of the method described in the

which Van der Wielen does not discuss although they contain decisive information about the doctrine with which this passage is concerned, for Aristotle there contends that in it, while 10 was generated as a unit, still number up to 10 was treated as if it were more of an entity and idea than 10 itself. The passage has troubled all commentators, and many have tried to "emend" it; Ross (*Metaphysics*, II, pp. 449-50 ed 1084 A 30) correctly explains the text but says that we do not know what "certain Platonists" may have said to justify this account of Aristotle's. What they must have said, however, may be read in [Iamblichus], *Theologumena Arithmetica*, pp. 76, 6-77, 3 (De Falco), the book in which is also preserved our longest fragment of Speusippus. There it is said that 9 is a *πέρας ἀνυπερβλήτων* (p. 76, 7) and that number admits nothing above 9 but 9 *ἀνακυκλεῖ πάντα ἐντὸς αὐτῆς . . . μέχρι μὲν γὰρ αὐτῆς φυσικὴ πρόβασις, μετὰ δ' αὐτὴν παλιμπετής* (p. 76, 16-18). What Platonist said this one may gather from a statement of Joannes Laurentius Lydus: *οὗτος γὰρ (scil. ὁ ἐννέα ἀριθμός) αὐτὸν γεννᾷ κατὰ Ξενοκράτην· ἀόριστος γὰρ ἡ ἔχει ἐννεάδος πρόβασις καὶ πλήθει σύνοικος* (*De Mensibus*, p. 48, 21-23, Wünsch = Xenocrates, *frag.* 58). There can therefore no longer be any doubt that the doctrine to which Aristotle refers in 1084 A 29-37 is that of Xenocrates.

None of these passages then gives any further information concerning what is reported of Plato in *Physics* 206 B 27-33. It may well be that *μέχρι γὰρ δεκάδος ποιεῖ τὸν ἀριθμὸν* there refers, as Ross has suggested (*Physics*, pp. 557-8), only to some passing remark of Plato's concerning the decimal system quite unconnected with his theory of ideas, or it may be that in explaining the series of ideal numbers he stopped at 10 for practical purposes without intending thereby to limit the series to the decad.

passages of M 7 just mentioned,⁸⁷ so that, if it is a misinterpretation of Plato, they also refer to Plato and cannot be eliminated from consideration in Van der Wielen's fashion. Moreover, merely to label them misinterpretations of Plato's theory is not enough; it is necessary to show how with some plausibility Aristotle could have formulated such a misinterpretation. Such an explanation of the criticism in 988 A 2-4 is offered by Van der Wielen's hypothesis, though he seems to be unaware of it. He assumes that the form which operates to produce 2, 4, and 8 is in each case "one" because it is in the several operations $\Gamma\Pi_1 \cdot \Pi_1\Delta$, $\Pi_1\Pi_2 \cdot \Pi_2\Delta$, $\Pi_2\Pi_3 \cdot \Pi_3\Delta$, all of which are 1·1 (see note 82 *supra*). Yet a critic could plausibly object that according to the figure the forms are in fact $\Gamma\Pi_1 \cdot \Pi_1\Delta$, $\Gamma\Pi_2 \cdot \Pi_2\Delta$, $\Gamma\Pi_3 \cdot \Pi_3\Delta$, for the number produced in each case is the ratio of the whole line $\Gamma\Delta$ to $\Pi_n\Delta$, that of these forms only the first, $\Gamma\Pi_1 \cdot \Pi_1\Delta = 1 \cdot 1$, and that therefore the form "one" generates once only. Since, however, $\Gamma\Pi_2 \cdot \Pi_2\Delta = 3 \cdot 1$ and $\Gamma\Pi_3 \cdot \Pi_3\Delta = 7 \cdot 1$, the figure viewed in this fashion makes the form 3 generate the number 4 and the form 7 generate the number 8; and this is not in accord with the method described in the passages of M 7, which seems to be implied by the criticism of 988 A 2-4, or with the characterization of the indefinite dyad as *δυοποιός* (1083 B 35-36), which implies this method (1082 A 13-15) and is reflected in the commentary of Alexander (*Metaph.*, p. 57, 4-11) mentioned above. No manipulation of Van der Wielen's figure, so far as I can at present see, will account for this interpretation or misinterpretation of Aristotle's. If, on the other hand, one accepts the assumption that the passages of M 7 refer to a method which was not Plato's, then, since 988 A 2-4 refers to this same method, one must admit that A, chap. 6 is not the exact and uncontaminated report of Plato's own doctrine that Van der Wielen takes it to be.⁸⁸

⁸⁷ Cf. Ross, *Metaphysics*, I, pp. lxii-lxiii. Van der Wielen misinterprets 988 A 2-4 himself (p. 133). He thinks that Aristotle means that by a single application of the form "one" to the matter all the idea-numbers are produced at once. Had Aristotle so understood the process, he could not have objected to it and especially not with the biological instance which he uses (988 A 4-7), since he himself says elsewhere that *ἐφ' ἑνὶ σπέρματι ἐνδέχεται πολλὰ γίνεσθαι ζῷα* (*De Gen. Animal.* 729 A 1-14).

⁸⁸ Ross, *Metaphysics*, I, pp. lxii-lxiii, takes 988 A 2-4 along with these

What casts the greatest doubt of all on Van der Wielen's hypothesis is that, while he recognizes fixed position in a serial order to be the sole "numerical" aspect of the idea-numbers and supposes Plato to have set up his figure for the purpose of explaining the nature of such "numbers," the figure of his hypothesis, as he admits himself (p. 137), could not show on what the natural order of the numbers depends or even what the natural order is. It is surely difficult to believe that Plato chose to explain the nature of these numbers by means of an illustration which could not represent their distinctive characteristic of "priority and posteriority" to one another (cf. *Metaphysics* 1080 B 11-14); it is impossible to believe it in the face of Aristotle's statement that the order of the numbers derived from the one and the indefinite dyad was the succession 2, 3, 4 (1081 A 21-23).

Even if Van der Wielen's hypothetical figure were adequate to illustrate what he describes as the essential characteristics of Plato's ἀριθμητικὸς ἀριθμός, these characteristics are those of ideal number and in no way involve the identification of all ideas with numbers, the distinctive characteristic of the so-called doctrine of idea-numbers. Van der Wielen recognizes that the Platonic dialogues refer to ideal number (though he mistakenly allows them but a single reference to it⁸⁰) and that they take no cognizance of idea-numbers (p. 144 on *Philebus* 62 A-B and *Epistle VII*, 342 B-343 B); but he fails to observe that *Metaphysics* 1079 A 15-16 (= 990 B 19-20) is evidence that the characteristics which he ascribes to idea-numbers belonged in fact to the ideal numbers of the "earlier theory" (cf. *Aristotle on Plato*, pp. 300-305 and 515-522). He expressly refrains from considering why Plato may have identified all ideas with ideal number (p. 2); but he believes that a list of passages in which Aristotle seems to assert the identification makes the fact itself

passages in M to reflect "the presumably Xenocratean account." Notice the form, οἱ μὲν . . . νομοῦντες, in 988 A 2 and cf. *Aristotle on Plato*, pp. 194-5.

⁸⁰ *Phaedo* 101 B-C (Van der Wielen, pp. 33 and 50); but *Philebus* 56 D-57 A and *Republic* 525 C-526 B also refer to ideal number, not "mathematical numbers" as Van der Wielen believes (see note 79 *supra*). Van der Wielen also fails to observe that *Cratylus* 432 A-D has important bearing upon Plato's consideration of the nature of ideal number (cf. *The Riddle of the Early Academy*, p. 34).

certain (p. 54). Not all of these passages, however, really make the assertion;⁸⁰ and Van der Wielen fails to mention others which state or imply the opposite⁸¹ as well as the possibility that where Aristotle does ascribe this identification to Plato he may be doing so for the dialectical purposes of his own argument. He recognizes (n. 82) that *Metaphysics* 1081 A 5-17 undertakes to prove that the ideas *must* be the numbers derived from the one and the indefinite dyad; but he fails to observe that this passage at once guarantees the text of 987 B 21-22 against the "emendation" to which he, like most commentators, subjects it and indicates that in both places Aristotle's ascription of idea-numbers to Plato is the result of his own logical construction.⁸²

The one piece of evidence against Plato's identification of ideas and numbers to which Van der Wielen devotes much attention is the passage of Theophrastus' *Metaphysics* (6 B 11-15) in which Plato seems to be represented as having made the numbers superior to the ideas. This passage, which Robin accepted in correction of Aristotle's statements (*La Théorie Platonicienne des Idées et des Nombres*, p. 458), Van der Wielen (p. 153) seeks to reconcile with them by supposing "numbers" here to mean the idea-numbers in the strictest sense and "ideas" the ideas of geometricals to which Aristotle sometimes refers as "the things after the numbers." Without pretending here to analyze fully

⁸⁰ *De Anima* 404 B 24-25 and *Metaphysics* 1084 A 29-31 certainly do not refer to Plato; 1073 A 18-21 does not refer to him specifically (see note 86 *supra*), and it is uncertain whether he is meant to be included among those referred to in 1090 A 16-20. *Metaphysics* 1086 A 11-13 does refer to him but means only that he distinguished ideas and mathematical (cf. *The Riddle of the Early Academy*, p. 47, n. 83). *Metaphysics* 1080 B 11-14 says only that certain numbers are ideas, not that all ideas are numbers; and this is also true of 1092 A 8 and is the assumption of 1084 A 7-9 and 1090 A 4-7.

⁸¹ E. g. *Metaphysics* 997 B 5-12, 1040 B 30-1041 A 3, 1059 A 10-14; *Eth. Nic.* 1096 A 34-B 5; *Physics* 193 B 35-194 A 7 (cf. *Aristotle on Plato*, pp. 200-5).

⁸² Van der Wielen excises τὰ εἰδή instead of τοὺς ἀριθμούς in 987 B 22 just because he is convinced that Plato identified the ideas with numbers (p. 54); but the continuity of the passage requires that both be retained. On the text, the relation of 1081 A 5-17 to it, and the implications cf. *Aristotle on Plato*, note 104 and page 197, and *The Riddle of the Early Academy*, pp. 58-9. Incidentally, Van der Wielen's paraphrase of 1081 A 12-17 on p. 81 is inaccurate and misleading.

the Aristotelian passages from which Van der Wielen attempts (pp. 142-54) to establish such a "fourth class" for Plato—to which extent he is in agreement with Robin and Ross—and at the same time to vindicate the supposed Theophrastean use of "ideas" for this class despite its distinction from the idea-numbers, one may say that many of these passages, like *De Anima* 404 B 18-27 (see note 77 *supra*), demonstrably do not refer to Plato²² and that *Metaphysics* 1028 B 19-21 and 1059 B 2-9, instead of proving, as Van der Wielen thinks (pp. 153-4), that *idéas* could be used to refer specifically to "the things after the numbers" as well as to the idea-numbers, indicate that Aristotle never seriously ascribed any such "fourth class" to Plato at all. It is peculiarly improbable that in the latter passage *τὰ αἰδή* should have been used "less exactly for the idea-numbers along with *τὰ μετὰ τὰς idéas*," for there Aristotle, summing up the number of classes, says that *τὰ αἰδή* constitute one of Plato's three kinds of entities (ideas, mathematical, and sensibles) and, contrasting the doctrines of Speusippus (1028

²² *Metaphysics* 1090 B 32-1091 A 5 does refer to Plato; but, as 1001 B 19-24 shows, the text of lines 36 f. should read *ἐξ ἄλλου δὲ τίνος . . . τὰ μετέωρα ποιεῖ*; (*Aristotle on Plato*, p. 483) and so does not ascribe to Plato a "different material principle" for magnitudes. It does not then refer to the theory reported in 1085 A 7-12; moreover 1085 A 7-12, since it does give the same theory as 992 A 10-18, is with it differentiated by the statement of 1087 B 12-21 from the doctrine ascribed to Plato, as 1089 B 9-15 is also (cf. *Aristotle on Plato*, pp. 481-3). *Metaphysics* 992 B 13-18, if it did refer to the same theory as 992 A 10-18, could not refer to Plato; in fact it refers in part to that and in part to the doctrine of Xenocrates (cf. 1090 B 20-26), for it is one of those arguments by which Aristotle believes that he refutes several Platonistic theories at once. The "fourth class" here named is an absurd consequence which he believes his criticism forces upon his opponents, exactly like the *εἰσφοράς* that he deduces in 1076 B 11-39; it is not evidence that anyone did posit such a separate class. Moreover, anyone who deliberately identified all ideas with numbers could then have posited such a class of "non-numerical ideas" only if he did not know what he was doing in the first place. This Van der Wielen apparently suspects (p. 143); but he then supposes that Plato did just this as a hesitant compromise with his "older theory." He tries to find in 1036 B 13-17 support for this hypothesis (pp. 144-6); but, though he identifies the reference to Plato in this passage differently from Ross, his interpretation depends upon the same impossible translation of the passage (cf. *Aristotle on Plato*, pp. 567-8) and is therefore entirely without foundation.

B 21-24) and Xenocrates (1028 B 24-27), especially mentions magnitudes as another class of entity for the former and lines and planes as things that come after the idea-numbers of the latter.⁹⁴ It is not even implied here that Plato's ideas were identified with numbers (cf. *The Riddle of the Early Academy*, p. 47); and the former passage (1059 B 2-9) distinctly implies that they were not, for if the idea of man were a number it would be absurd for Aristotle to say as he does that there are mathematical intermediate between the ideas of number and sensibles but nothing intermediate between the idea of man and particular men.

Van der Wielen's book is a serious study of an exasperatingly difficult but ever fascinating topic; and, lest I seem to have scrutinized it too pedantically or disagreed too captiously with its conclusions, I am eager to say that I have treated it as I have because I feel that it deserves the careful attention of all who are concerned with this most baffling aspect of the Platonic tradition.

The theory of idea-numbers ascribed to Plato by Aristotle has been the subject of much speculation, controversy, and fanciful hypothesis; but it cannot in this respect compete with the subject of Dr. Gegenschatz's dissertation,⁹⁵ the island that Plato conjured up from the outer ocean and straightway made to disappear again in a day and a night of cataclysm and earthquake. In 1926 a bibliographer could cite 1700 books and articles that had been written about Atlantis; and the titles of what has been published on the subject since that date would make a sturdy supplement.⁹⁶ All this is no doubt a tribute to the potency of

⁹⁴ *Metaphysics* 1080 B 24-25, *οἱ μὲν γὰρ ἔτιμα τὰ μαθηματικὰ καὶ τὰ μετὰ τὰς ἰδέας*, though referring to Plato, is also thus expressed from the point of view of Xenocrates' doctrine which Aristotle had just mentioned in 1080 B 22-23 and to which he returns in 1080 B 28-30. That is, the ideal magnitudes which in Xenocrates' theory came after the ideas and were identified by him with mathematical magnitudes were by Plato distinguished from the latter.

⁹⁵ Ernst Gegenschatz, *Platone Atlantis* (Zürich, Ernst Lang, 1943), pp. 63.

⁹⁶ Cf. J. Gattefossé et C. Roux, *Bibliographie de l'Atlantide* (Lyon, 1926). Some of the later literature is mentioned by Leisegang, *Die*

Plato's literary magic; but much of it is also evidence of the obtuse literalism of his readers or, if you please, another proof that it is easier to conjure the djin out of the bottle than to get him back into it again. Would Plato be amazed or only amused to know that what his fancy had created not even his fancy could destroy and that in the twenty-third century after he had put aside the uncompleted *Critias* scholars and enthusiasts are still trying to discover the city which he fondly imagined removed by earthquake and flood from all temptation of research or, if not to find the island itself, at least to discover the "real" land or city which his fancy transformed and transported beyond the pillars of Heracles and sank into the sea?

To Dr. Gegenschatz's credit be it said that he is aware of the absurdity of the former search and the dangers of the latter (pp. 4-5). He knows that Plato to embellish his imagining could have used whatever bits of material he found at hand and that the woven web would remain none the less the web of his imagination; that, if in Atlantis there be found reminiscences of Ecbatana and Syracuse, Atlantis is not therefore the idealized Orient or Sicily but Atlantis still (pp. 23-5). So he proposes to discover the meaning of Atlantis from Plato himself by interpretation of its context within Plato's thought (pp. 6 and 25), an admirable proposal, even if it is not so novel as Dr. Gegenschatz appears to believe.

That the story of *Critias* is an εἰκὼς λόγος ought to be obvious, especially since *Critias* comes as near to saying so as he reasonably can without depriving the story of all verisimilitude at the outset.*¹ Gegenschatz elaborates a long argument to prove it

Platondeutung der Gegenwart (1929), pp. 157 ff., Paul Shorey, *What Plato Said* (1933), p. 620, and Gegenschatz himself, who does not attempt to give a full bibliography even of recent works, however. The most recent article on the subject known to me is R. Hackforth's "The Story of Atlantis: Its Purpose and Moral" in *O. R.*, LVIII (1944), pp. 7-9.

* It is implied by *Critias*' comparison of the discourse that he is about to give with that which *Timaeus* has just finished (*Critias* 106 B 8-108 A 1). *Critias* 106 B 8-C 2 refers directly to *Timaeus* 29 C 7-D 3 as does *Critias* 107 B 5-7, where *κατὰ πάντων ἡμῶν* means, of course, ἀνθρώπων ὄντων, "since we are men"; in 107 E 2-3 *Critias* indicates again that his discourse will be an ἀπαικασία. With respect to the whole "Egyptian tradition" one should remember *Phaedrus* 275 B: ὦ Σόκρατες, ῥαδίως σὺ Αἰγυπτίους καὶ ὁποδαποῦς ἀν' ἐθέλῃς λόγους ποιεῖς.

(pp. 6-19), in the course of which he commits himself to such theses as that Plato never meant to write a *Hermocrates* and that *Timaeus* 17 C-19 A refers to the *Republic* but pretends to refer to some other conversation in order to prevent the reader from connecting the *Republic* with the *Timaeus* and *Critias* to form a trilogy. The first of these theses is, of course, not susceptible of proof or refutation; but certainly as late as *Critias* 108 A-B Socrates believes that Hermocrates is going to speak after Critias has finished, and Critias (108 C 5-7) confirms this belief. As for the second thesis, since Plato took pains to distinguish the reported conversation from the *Republic*, the only reasonable conclusion is that he meant it not to be a reference to the *Republic* at all. Gegenschatz holds, however, that this "recapitulation of the *Republic*" without the philosophers is indicative of Plato's late philosophy (p. 29), in the context of which must be found the meaning of the εἰκὼς λόγος of Atlantis. The sketch of this epoch of Plato's thought (pp. 25-33) represents it as the result of his disappointment in Sicily which broke his belief in the state, "that had served as the basis of his metaphysical discovery," and so caused the doctrine of ideas to become a problem to him. The *Parmenides*, of course, is cited as evidence of this "crisis." Plato did not abandon the doctrine of ideas, we are assured, but no longer concerned himself with it in detail; disappointment "drove him into the arms of γένεσις," for the ideas no longer satisfied his metaphysical longing, and he now sought to mitigate the imperfection of Becoming by finding harmony in the world of Becoming itself. In this late period, consequently, Plato's thought is said (pp. 33-9) to have changed from the static pattern of a "conceptual pyramid" to the dynamic pattern of the cycle;* he applied to everything the metaphor of the organism and with this connected the notion of deterioration; and by means of this theory of deterioration the doctrine of ideas was temporalized, the ideal state becoming the original state in time.

So Gegenschatz, having proposed to interpret Atlantis from its context in Plato's thought, interprets the context of his thought from external events, the relation of which to his writ-

* Gegenschatz has borrowed this terminology from the work of H. Leisegang, *Denkformen* (Berlin, 1928).

ings is quite unknown.⁹⁹ The question of method apart, however, the text of Plato proves that this interpretation of his "late period" is quite unfounded. After the *Parmenides* the *Sophist* certainly concerns itself with the ideas in detail (e.g. 253 B-259 D), the *Politicus*, in which according to Gegenschatz (p. 30) the vision of the ideas as the fulfillment of dialectical exercise is missing, states that the apprehension of the ideas is the purpose of dialectic (*Politicus* 285 E-286 A), and the *Philebus*, which refers to the ideas again and again (15 A-B, 57 E-59 D, 61 E-62 B), refutes Gegenschatz's statement that in it "Becoming itself acquires through number the ideative appearance of Being" (p. 32) by distinguishing Becoming from Being as sharply and uncompromisingly as any of the earlier dialogues (cf. 59 A-C).¹⁰⁰ So, of course, does the *Timaeus* (cf. especially 51-52), of which dialogue there could be no more perversely erroneous interpretation than the statement (pp. 30-1) that "because the ideas had lost their force Plato has been turned aside to the terrestrial and no longer regards the $\delta\upsilon$, though he assumes it, but $\gamma\acute{\epsilon}\nu\epsilon\alpha\iota$." Most amazing of all is the assertion (p. 29) that the ideas and philosophers are absent from the résumé of the best state in *Laws* 739 A-E, for this is not a résumé of the best state but an explanation of the reason for the subsequent deviations from the state of the *Republic*, which even here is said still to be the best (cf. England's notes *ad loc.*, especially on 739 C 1); and when at the end of the *Laws* Plato comes to the true guardians (961 A ff.) the theory of ideas and its importance for the state are asserted once more in emphatic language (962 D-966 A, especially 965 B-D). Nor can the notion of deterioration be taken as an indication of an alternative to the original theory of ideas. Gegenschatz himself remembers that the conception of the deterioration of the state is developed in the *Republic* (546-580); but he makes no attempt to reconcile this with his interpretation beyond calling this long passage a "Fremdkörper" (p. 38), though he does not say whether by that he means that it was not composed in the same period of

⁹⁹ Cf. Morrow's criticism of Hackforth's attempt to date the *Philebus* by Plato's "disillusionment" with respect to Sicily (*O.W.*, XXXIX [1945], p. 63).

¹⁰⁰ Gegenschatz supports his contention by citing the notorious $\gamma\acute{\epsilon}\nu\epsilon\alpha\iota$ *eis obolai* of *Philebus* 26 D 8-9 on which see note 64 *supra*.

Plato's thought as the rest of the *Republic*. In fact, however, the law of deterioration is a corollary of the theory of ideas, for all materialization however "perfect" is a derogation of the ideas and is for that very reason subject to progressive deterioration (cf. *Republic* 546 A 2-3 and *Politicus* 269 D 9 ff.). No more can the "realization of the ideal state in time" be interpreted as a change in Plato's philosophical attitude. Just as *Republic* 472 B-E and 592 A-B show that Plato was not likely to alter his metaphysics because of any subsequent failure to realize the ideal state in Sicily, so at the same time *Republic* 499 C-D asserts stoutly the possibility of such a realization of it sometime in the past or future or even in the present "in some barbaric region far from our ken."¹⁰¹

The ancient Athens of Critias' story as the "temporalization of the ideal state" has none of the philosophical implications, then, of Gegenschatz's interpretation. So temporalized, it is, of course, in the world of change; but its war with Atlantis need not be interpreted as symbolical of this, as a literal application of Heraclitus' figure, πόλεμος πατήρ πάντων.¹⁰² Even in the *Republic* Plato considers war as a fact to be provided for in the ideal state, and his reason is not to be sought in any symbolism. If in the world there were only perfect states, there would no doubt be no occasion for war; but so long as there is *one* imperfect state it will make war, and the perfect states cannot avoid involvement. In *Republic* 373 D-E the origin of war is discovered in men's abandonment of themselves to the unlimited acquisition of property when they exceed the boundary of necessary wants (cf. *Phaedo* 66 C); and so it is that the war between Atlantis and Athens is represented as the result of the insolent desire of the former to enslave all the world (*Timaeus* 24 E 2-3, 25 B 2-5), a desire which was the outgrowth of its πλεονεξία ἄδικος (*Critias* 121 B 6). Such a war is a trial in which the good state should display in action the value of the education

¹⁰¹ This incidentally refutes Gegenschatz's statement (p. 40) that even in the *Republic* Plato could imagine only Greek circumstances as the condition for his ideal state.

¹⁰² Gegenschatz (p. 44) appeals for this interpretation to Proclus, *In Timaeum* 24 B (I, p. 76, 20 [Diehl]), who gives it as the interpretation of those who took the whole story of Atlantis as a symbol of the contrarieties in the universe.

and nurture that have made it what it is, and at the beginning of the *Timaeus* (19 C, 20 B) just this exhibition and this purpose are given as the motivation of the whole account. Such a trial requires a "worthy" opponent, and Gegenschatz is right in asserting that the need for such an opponent is the sole reason for the creation of Atlantis. His attempt to make it simply a doublet of Athens, however, and to find between the two a perfect parallelism (pp. 44-8) is quite mistaken. Atlantis and Athens are not "the ideal state pluralized in Becoming"; if they were, there would have been no aggression and no war. Though many of the details in the description of Atlantis may be merely magnifications of things familiar to the Athenians, Plato makes it clear that as in government and military organization so even in the superiority of size and wealth and physical power Atlantis is barbaric in the inward sense.

Gegenschatz's assertion of the "ideality" of Atlantis is motivated by his desire (pp. 48-57) to identify as the origin of Atlantis the "true earth" of the *Phaedo*, which he takes to be the "ideal world." He has already explained (p. 41) the ancient Attica of Critias' story as this "ideal land" of the *Phaedo* reduced to historical dimensions. Atlantis too now becomes this "ideal land" transposed from the vertical plane to the horizontal and simply placed in another "hollow" of the earth's surface described in the *Phaedo*.¹⁰⁰ So the "ideal land" of the *Phaedo* transposed in time is ancient Athens and transposed in space is Atlantis (cf. p. 59).

Of course, if Atlantis and Athens are not "doublets of the ideal state," Gegenschatz's explanation is an impossible combination. In any case, in the myth of the *Phaedo* itself, the "true earth" is not and does not even "symbolize" the ideal world, as *Phaedo* 114 C plainly shows; and so, even if Atlantis were this "true earth" transposed to the outer ocean, that still would not

¹⁰⁰ Gegenschatz (note 128) argues that Friedländer (*Platon*, I, pp. 257 ff.) is mistaken in supposing that there is no communication between the "hollows" in the *Phaedo*. Quite apart from the question of a "geographical development" from the *Phaedo* to the *Timaeus*, Friedländer is right in this, for the "true earth" consists of the summits of the land that must therefore cut off the various "hollows" from one another (cf. *Phaedo* 110 C 6 ff., 111 A 3 ff.).

render it "ideenhaft."¹⁰⁴ Dr. Gegenschatz's search for the source of Atlantis in some other figure of Plato's does not really differ from those attempts, which he rejects, to find that source outside. It proceeds from the silent assumption, which is not in itself necessary, that Atlantis could not have been a fresh invention of Plato's fancy but only a refashioning of some older invention; and in the process it does more violence to the significant thought of Plato than do the wildest archaeological and geological theories of Plato's inspiration.

That the wealth and vividness of Plato's imagination were not diminished even in his latest years is easily confirmed by a glance at Pierre Louis's study of Plato's metaphors.¹⁰⁵ Plato himself mocks his own custom of resorting to "images" (*Republic* 487 E-488 A) and once at least expressly gives warning that "likenesses are a most slippery tribe" (*Sophist* 231 A); but from first to last his pages are full of these "images" expressed as similes, metaphors, analogies, or fully developed myths. To Professor Robinson this aspect of Plato's method appeared to be inconsistent with his methodology (see pages 145-6 *supra*). In Dr. Louis's opinion, on the contrary, Plato's images make it possible for him to indicate the analogy between realities on different levels, and, by addressing themselves to the imagination, they awaken reflection better than a long demonstration would; his images are veritable arguments, and the frequent use of a multiplicity of images to illustrate the same notion gives vivid expression to the impossibility of confining that notion in a unique formula and to the necessity of rising to the truth by successive steps (pp. 180-2).

Dr. Louis's book does not pretend to be a study of Plato's method, however, but rather an exhaustive collection of the metaphors which are used in the Platonic corpus. After a brief

¹⁰⁴ Gegenschatz uses his misinterpretation of the *Phaedo* to interpret τὸν ἀληθινὸν πόντον and ἀληθῆς ἥπειρος in *Timaeus* 25 C as "sea of the idea" and "ideative continent"; this would be utterly impossible, no matter what the *Phaedo* meant.

¹⁰⁵ Pierre Louis, *Les Métaphores de Platon* (Paris, "Les Belles Lettres," 1945 [Collection d'Études Anciennes publiée sous le patronage de l'Association Guillaume Budé]), pp. xxii + 269.

introduction in which he discusses the nature of metaphor as distinguished from simile and as the germ of Platonic myth and in which he gives a few general indications of the kinds of metaphor favored by Plato, Dr. Louis arranges the metaphors of the corpus according to the notions which they express, describing the most striking examples of each in his text and giving in footnotes references to all the other occurrences of each kind with some parallels to similar metaphors in earlier and contemporary Greek literature. This, the body of the book, is divided into nine chapters: Intellectual Activity, Dialectic, Discourse, Man, the Soul, the Theory of Knowledge, Morality, Social Life, God and the Universe. There is a succinct conclusion, and then follows a long appendix in which both metaphors and similes are classified more compactly according to the spheres from which Plato took them. There are full indices of passages and authors cited and of Greek words studied.

The task of compilation would have been a trying one in the best of circumstances, and Dr. Louis has well earned the gratitude of all who are seriously interested in Plato's thought and his expression of it. Mere classification, of course, implies interpretation; and with many of the implied interpretations here scholars will disagree, but in so doing they will remain in Dr. Louis's debt for much material. Moreover, in a field so vast there will be gleaning still to be done even after this harvest. For example, I miss a reference to the striking figure of the soul's "feasting on earth" (*Republic* 612 A 1) which explains the incrustations that obscure its true nature; this should be cited in contrast to the metaphor of knowledge as the nourishment of the soul. The complicated figure of *Philebus* 38 E-39 C is not really considered at all, 38 E-39 A being simply cited in comparison with *Timaeus* 26 C, which gives a false impression. The brief treatment of the metaphors used of the ideas (pp. 143-6) is not a safe guide to the philosophical implications of Plato's language.

Dr. Louis says something of the relevance of Plato's metaphors (pp. 177-8); but both space and the scope of his book perhaps precluded a detailed treatment of this most interesting and important aspect of the subject. Still, a word here and there might have been spared to call attention to the distinctive relevance of specific passages, as for example to the peculiar

fitness in calling Polemarchus the κληρονόμος of the argument in *Republic* 331 D ¹⁰⁶ or to the pathos of *Phaedo* 89 B 9 ff. . . . εἴνπερ γε ἡμῖν ὁ λόγος τελευτήσῃ καὶ μὴ δυνόμεθα αὐτὸν ἀναβιώσασθαι put into Socrates' mouth at this point in the dialogue when the arguments for immortality appear to have failed and the fate of Socrates is thus identified with the fate of the λόγος.

Much remains to be said of Plato's metaphors, but Dr. Louis's book will give substantial help to anyone who undertakes to say it.

Aristotle said that all metaphorical expression is obscure (*Topics* 139 B 34-35) and more than once dismissed important Platonic doctrines on the ground that they are mere metaphors (cf. *Eth. Nic.* 1138 B 5-13, *Metaphysics* 991 A 20-22). Certainly Plato's extensive use of metaphor has provided such a banquet for his interpreters that it would seem to be unnecessary if not impossible to ascribe to him a significant metaphor that he had not employed in some connection. This Professor Wild has done, however, in a book described by its publisher as the only work which attempts to explain Plato's theory of human inversions or sophistry in an exhaustive manner.¹⁰⁷ Since Wild in the beginning disclaims any intention of giving an "historic" exposition of Plato's philosophy and states that his purpose is "not so much to reveal the thought of Plato as to reveal the nature of human culture and its inversion, using Plato, the philosopher, as a guide" (p. 1), one's first inclination is to disregard the advertisement and not to compare the exposition too closely with the text of Plato. Yet the title of the book and the whole of its presentation and argument leave no room for

¹⁰⁶ It is a mistake to suppose (p. 68) that *καὶ οὗτος ἐκείνου τοῦ ἀνδρός* applied to Glaucon and Adeimantus in 368 A is the same figure, for *ἐκείνου τοῦ ἀνδρός* does not refer to Thrasymachus (cf. Shorey, *Class. Phil.*, XII [1917], p. 436). On page 113 Louis says "Socrate affirme dans le *Timée* 34 C"; this is the same sort of slip as that which Diès made (see note 73 *supra*)—and Aristotle!

¹⁰⁷ John Wild, *Plato's Theory of Man* (Cambridge, Harvard University Press, 1946), pp. x + 320. Chapter II of this book appeared as an article entitled "Plato's Theory of ΤΕΧΝΗ: A Phenomenological Interpretation" in the *Journal of Philosophy and Phenomenological Research*, I, no. 3 (March, 1941).

doubt that the author intends his readers to believe that they are being presented with an accurate interpretation of Plato's theory of man. Execrating the "modern" philosophy of Descartes and all its descendants legitimate, illegitimate, and suppositions, he wishes to exorcize the whole tribe by formulating a philosophy of human culture to complement the metaphysics of Neo-Thomism; but, instead of merely showing that this anthropology of his is compatible with that metaphysics, he assumes that the latter is genuine Aristotelianism and the former genuine Platonism and argues that the philosophies of Plato and Aristotle themselves were complementary and not opposed to each other in any essential detail.¹⁰⁸ The basic metaphor of this anthropology, the "inversion" of an hierarchical structure of human culture, he ascribes to Plato (pp. 34-43); and at the end of his first chapter he states (p. 43) that his task in the rest of the book is "to follow Plato in his account of all the *necessary* levels of the practical hierarchy" and at the same time "to follow him in attempting to show *at every level* the possibility of an inverted or anatomic art, an anatomic society," etc. Conformably with this program chapter II deals with the human arts and their inversion, chapters III and IV with social and individual life respectively, chapter V with the image of the cave, chapter VI with being and its inversion, which is an interpretation of the *Parmenides*, chapter VII with the inversion of the apprehensive faculties (the *Theaetetus*), and chapter VIII with the *Sophist* as a definition and description of the "anatomic" man who bears within himself the seeds of cultural inversion and decay.

"According to Plato," Wild says (p. 36), "anatomic, or inversion, is defined as the miscarriage of human action involving misapprehension of the hierarchical structure of means and

¹⁰⁸ Wild appears to think (pp. 12-22) that this is proved by Jaeger's theory of Aristotle's development and by the eclectic tendencies of some Middle Platonists and Neo-Platonists. Even if Jaeger's theory were established, it would still not diminish the opposition of Aristotle's developed doctrine to Plato's. The attitude of the eclectic harmonizers gives no more reason for "reconciling" Plato and Aristotle than it does for "reconciling" them and Stoicism. In any case, the important fact is Aristotle's own belief that he is opposed to Plato's doctrines, an opposition that was recognized by Atticus, Alexander of Aphrodisias, Syrianus, and Proclus; the childish method of explaining it away that was adopted by Simplicius and Asclepius is taken seriously by no-one.

ends." He does not say where Plato gives this definition but says that in *Laws* 640 E "he explains the general sense in which he uses this ubiquitous word by asking the following question: 'do you not know that when the pilot becomes stupefied, every ruler of whatever enterprise overturns (*ἀνατρέτειν*) whatever is piloted by him whether it be ship or chariot or army?'" The "ubiquitous word" apparently is *ἀνατρέτειν*, Wild having just said that "Plato uses the expressive noun *ἀνατροπή* (inversion) or the corresponding verb *ἀνατρέπειν* (to invert) for this complex, *dynamic* confusion which lies at the root of moral evil and sin." The fact is that Plato uses the noun *ἀνατροπή* just once, and that in a speech of Protagoras (*Protagoras* 325 C) where it means the overthrow, i. e. the destruction of houses. The verb according to Ast's *Lexicon* occurs 20 times in the whole Platonic corpus, two of these occurrences being in *Epistle* VII; it occurs thrice in the *Republic*, once in the *Sophist* and not at all in the *Theaetetus* and *Parmenides*, the dialogues of which Wild makes so much. Such is the "ubiquity" of the word. It always means capsize, upset, overthrow, ruin, or refute and never "invert" in the sense given it by Wild, whose definition of *anastrophe* is nowhere even remotely suggested by Plato. *Laws* 640 E, which he so strangely translates in explanation of this general sense, occurs in a discussion of drinking and means: "do you not understand that a pilot or any commander of anything who is drunk overturns everything whether ships or chariots or army or whatever he might be piloting?" When he says (p. 38) that "Plato generally uses the verb *invert* (*ἀνατρέπειν*) of this living death," i. e. of the soul's burying itself in a corporeal tomb, he gives no examples; and he could not give any, for Plato never uses the verb in this connection. Where the word does occur, Wild mistranslates, misinterprets, and conflates passages in order to put his metaphor and his theory into Plato's mouth. "As 'irrational force' gets into the saddle it *inverts* many things one by one, but finally, as its authority is extended, 'it will invert the whole life of everybody'," he says (p. 38), citing *Laws* 863 B 4 for the first clause and *Republic* 442 B 3 for the last. The passage of the *Laws* says that passion or anger (*θυμός*), a contentious and unconquerable thing innate in the soul, by brute force works much destruction; the subject of the clause from the *Republic* is not *θυμός* at all but *τὸ ἐπιθυμητικόν*, the appetitive

part of the soul, which the λογιστικόν and the θυμοειδής are here said to watch over lest it overturn the entire life of all the parts of the soul. Nevertheless, despite the multifarious misinterpretation, the word ἀνατρέψαι at least does occur here. At the very beginning of this section, however, Wild shows that he does not require even so much external aid to read his anatrofé into Plato's text. "As Plato himself carefully explains in the *Phaedo*," he says (p. 35), "'opposite things come to be out of opposites' and 'in all cases, between the two opposites there are two opposed processes,—from the positive down to the negative, and from the negative up again to the positive'." For this last quotation—and he sets it off by quotation-marks—he cites *Phaedo* 71 A 13–B 2; but there is not in this passage any word for "up" or "down" or "positive" or "negative" or any indication that any such notion is involved in Socrates' argument.

This section which introduces "Plato's Conception of Anatrofé" is a fair example of the whole book. Almost every page contains irrelevant citations, by which I mean references to Platonic passages which are presumably meant to substantiate the statements in Wild's text but which when examined prove to have no relation to them. For example, a reference to *Republic* 549 C 2 is given in a footnote appended to the statement, "the pursuit of philosophy cannot long be maintained 'in an ill-governed city'" (p. 160); but, while the phrase ἐν πόλει . . . οὐκ εὖ πολιτευομένη does occur in *Republic* 549 C, it occurs not in any such context as that into which Wild puts it but in a sentence which says that the timocratic youth is often the young son of a good father who lives in a badly governed state and who avoids honors, offices, litigation, etc. Frequently there is not even so much as this, the presence in the original of a similar word or phrase, to justify the reference, as when *Republic* 595 C ff. is cited in a footnote to the pronouncement, "Thus philosophy, becoming isolated from theology, and losing its organizing principle, gives way to science" . . . (p. 78). How little the context of a word, phrase, or argument means to Wild may be seen from the fact that he quotes as Plato's opinion (p. 90) *Charmides* 163 E 8–11, a statement made not by Socrates but by Critias, indirectly attacked by Socrates, and subsequently withdrawn by Critias. What Professor Robinson calls "mosaic interpretation" luxuriates. Thus Wild pieces together from the

"divisions" of the *Sophist* and *Politicus* and from occasional remarks in other dialogues a classification of the true and spurious arts (pp. 59 ff.) and even introduces as underlying all the other branches of acquisitive art an art which he admits Plato nowhere included in any classification but which according to him "like so many other important details is left to the reader" (p. 61, n. 46). He confuses the "auxiliaries" and the "true guardians" of the *Republic* (p. 102) and applies to the latter what Plato says of the former (429 C and D; contrast 429 B and 428 E). He goes far beyond such conflations, however, and documents his statements of Plato's opinion with references to those of Aristotle. Sometimes he does this without more ado, presumably because he believes that Aristotle's philosophy and Plato's are equal to the same thing and therefore are equal to each other. Once, however, he undertakes to argue that his attribution of a certain distinction to Plato "is clearly borne out by Aristotle who takes the distinction between *ποίησις* and *πράξις* from the *ἐξωτερικοὶ λόγοι*, p. 1140 A 2, i. e. Aristotle's early literary works. Jaeger . . . has shown that Aristotle's early ethics on the whole was developed along thoroughly Platonic lines" (p. 91, n. 14). Of course, even if one were to grant both the meaning here assumed for *ἐξωτερικοὶ λόγοι* and Jaeger's theory of Aristotle's early ethics, neither of which is granted by all competent critics, it still would not follow that therefore this distinction between *ποίησις* and *πράξις* was Plato's.¹⁰⁰ Yet such is the logic used by Wild, when he uses any at all, to justify documenting his interpretation of Plato with Aristotelian passages.

The naïf philologist is astounded by much simpler matters in this book, however. When I see *ὑβρις* interpreted as "insolent assertiveness of transitory conjecture" (p. 165), *θυμός* called "imaginative aspiration" (p. 97), or *αἰρετικὸς καὶ εὐλαβητικὸς ἐν χρῇ* (*Definitions* 412 A 1-2) translated "ready to choose and to receive whatever is rightly demanded of it" (p. 103), I know how Alice must have been affected by Humpty-Dumpty's "mastery" of English words, and I can only say that Wild's interpretation of *ὑβρις* is a perfect description of his own treat-

¹⁰⁰ It is, of course, not the distinction among *ποιεῖν*, *πράττειν*, and *ἐργάζεσθαι* that Critias draws in the *Charmides* (163 C 3-4; cf. Moreau, *La Construction de l'Idéalisme Platonicien*, pp. 116-17).

ment of Plato's vocabulary and syntax. By mere ignorance of the Greek idiom in τῷ ὃ ἦρχεν τ' ἐν αὐτῷ καὶ ταῦτα παρήγγελεν (*Republic* 442 C 5-6; cf. Goodwin and Gulick, *Greek Grammar*, § 1027 or Gildersleeve, *Syntax of Classical Greek*, II, § 529) he elaborates a "six-fold psychology" which he declares is really contained within "the tripartite psychology of Book IV" of the *Republic* (pp. 152 ff.); and his neglect of the difference between ἔστι and ἐστὶ would make even the least philosophical student of Greek suspicious of his fantastic interpretation of the *Parmenides*.¹¹⁰ He disregards the possibility that in different contexts the same word may have different meanings. For example, we are told (p. 299) that according to Plato discourse must be *about* something and that Plato calls this *relational* aspect of discourse a quality. For this Wild cites *Sophist* 262 E 5-6 and 262 E 8 and then solemnly explains that "strictly speaking it is not a quality but a *relation*." Had he read on to *Sophist* 263 A 11-B 3 (cf. *Philebus* 37 B-C), he should have seen that οὐκοῦν καὶ ποιὸν τινα αὐτὸν εἶναι δεῖ at 262 E 8 does not repeat 262 E 5-6 but means that in addition a statement must be true or false.

Insensitivity to Greek and to the context of Plato's thought at once are evinced by such notions as the identification of philosophy and τέχνη εἰκαστική (pp. 63-4, 281-4);¹¹¹ but one

¹¹⁰ For example in n. 46 on p. 223 Wild objects to Cornford's interpretation of the "first hypothesis" and says: "The phrase ἐν ἐν at 142 C 2 is not 'a more accurate expression than εἰ ἐν ἐστὶν for what was our supposition in Hyp. I'." Now, in the original formula (137 C 4) the verb is not ἐστι but ἐστὶ; and Cornford in his note (*Plato and Parmenides*, p. 136, n. 1) equates εἰ ἐν ἐν not with εἰ ἐν ἐστὶν as Wild says but with εἰ ἐν ἐστὶν. Moreover Cornford's equation here must be correct since Plato at the beginning of the second hypothesis says that it is: . . . ὁμοιον ἐν ἢ λέγειν ἐν τε εἶναι καὶ ἐν ἐν. νῦν δὲ οὐχ αὕτη ἐστὶν ἡ ὑπόθεσις, εἰ ἐν ἐν, τί χρὴ συμβαίνειν, ἀλλ' εἰ ἐν ἐστὶν. However you translate εἰ ἐν ἐστὶν in 137 C 4, you cannot translate it as Wild does (p. 220): "if One itself is"; and Wild's argument that the first hypothesis cannot be εἰ ἐν ἐν, because "if so, it would have been utilized there" (n. 46), is simply answered by the fact that it is so utilized there: 137 D 3, 138 B 4-5, 138 C 1-2, 139 B 5-6, 139 C 1, 139 E 2, 140 A 1-2, 140 D 1. It would be amusing to know what Wild can make of 141 E 12 f.: τὸ ἐν οὔτε ἐν ἐστὶν οὔτε ἐστὶν, εἰ δὲ τῷ τοιῷδε λόγῳ πιστεύειν.

¹¹¹ Of this Wild makes τέχνη φανταστική, which he identifies with sophistry, the "perversion" (p. 284); but Plato says that both are parts of εἰδωλοποιΐα (*Sophist* 236 C 6-7) and puts εἰκόν, εἰδωλον, and

cannot help suspecting something worse than mere insensitivity when one reads such statements as that (p. 107) in the *Republic* "all phases or parts of the state are ruled by wisdom which belongs to no special individual or group," for even Wild must know that Plato emphatically asserts the very opposite (*Republic* 428 E-429 A).

Wild's notions of Plato's doctrine derive in part from his attempt to sterilize Plato, in part from his attempt to force all of Plato's variety and profundity into the formula of a single metaphor, but chiefly from his fertile misunderstanding of the Greek language and his arbitrary mishandling of the text of his author. "Anatropism" has little or nothing to do with Plato, but it is an appropriate metaphor to describe Wild's method of interpretation.

The best and the worst of books about Plato have this good feature in common, that they awaken in the serious reader the desire to return with greater attention and thoughtfulness to the writings of Plato. The most foolish and arrogant interpreter cannot expect that his interpretation will supersede the original; the wisest has no higher hope or desire than to help men read that original with more care and insight. All the books that I have here discussed have sent me back again and again to Plato's words, and for this above all I am grateful to their authors; I hope that those who read my discussion of these books may derive like benefit from it.

φάρμακα all, as being ψῆδος, on the same level (264 C 12 f.). Wild's notion that the φαρμάκων ἀντροπῆ of *Sophist* 266 B 9-10 are the "true likenesses in the soul according to nature," from which he builds up the theory that the εἰκόνες of the "divided line" are the images of sensible things "produced in human sensation, the supreme mimetic medium of nature" (pp. 177 and 280-1) is particularly inexcusable in view of Plato's explicit statement that they are shadows and reflections in smooth surfaces (*Sophist* 266 B 10 ff.) and his similar catalogue of the εἰκόνες (*Republic* 509 E 1 ff., cf. 532 C 1 ff.). There is, of course, not a word or a hint in *Sophist* 266 C, as Wild, p. 280, n. 34, implies that there is, that man is the maker "of imitations, first in the imagination itself."

Platons Akademie. By HANS HERTER. ("Bonner Universitätschriften," No. 4.) Bonn: Verlag Hans Scheur, 1946. Pp. 40.

This exposition in its main features of form and content follows the traditional pattern for the treatment of this subject. It is pleasantly fluent and culminates in an edifying peroration, exhorting all modern universities to be true to the spirit of that institution which, according to Herter, is their common ancestor; but as an account of the nature of the Academy and of Plato's teaching it cannot be said to be an improvement upon the highly fictional or enthusiastically conjectural expositions which on account of the very number and the professional dignity of the authors have during the last hundred years come to be widely accepted as a satisfactory substitute for historical evidence.

Herter begins his essay with a description of the location and the physical characteristics of the Academy, in the founding of which he believes Plato to have been strongly influenced by Pythagorean example, although, in any case, his antipathy to Antisthenes, who had already begun to teach in the gymnasium of Cynosarges, must have impelled him to come forward in opposition.¹ The location of the

¹ On the strength of *Diog. Laert.* iii. 5, Herter says (p. 7 and note to p. 7, l. 30) that Plato first taught in the gymnasium; but the whole context shows that Diogenes understood the statement of Alexander Polyhistor to refer to the time before Plato had met Socrates; and, if Alexander really wrote *ἐπιστήμης* . . . καὶ Ἡράκλειτον, Diogenes' interpretation of the statement must be correct, and *ἐπιστήμης* would mean

130 Academy gives Herter the occasion to contrast Plato's love of rural quiet and Socrates' preference for life in the city. As evidence for this attitude of Socrates he cites *Phaedrus* 230 D; but, after all, it was Plato who wrote this passage, and there is no reason to suppose that it expresses his own feeling any less than does 230 B-C, the description of the charm of the countryside which he puts into Socrates' mouth. It would be more to the point to observe from passages like this that Plato had "two sides to his head."

After characterizing the organization as a *thiasos* of the Muses, speaking of its "symposia" and referring to the anecdotes which tell how Plato's writings drew pupils to him from far and wide, Herter outlines the daily routine of the school, for which he has really no evidence at all. The passage in *Academicorum index*, col. VII, ll. 41 ff. (pp. 41-42 [Mekler]) does not support the statement that the Academy under Plato began the day's work with a sacrifice to the Muses; it does not say at what time of day the sacrifice which Xenocrates omitted was ordinarily offered or even that it was offered daily. It seems even more unjustifiable to take what Aulus Gellius (xx. 5) says of the practice of Aristotle as evidence that in Plato's Academy the more difficult lectures were held in the morning and the easier ones in the afternoon. The passage in question is not unexceptionable evidence even for Aristotle, for its purpose is to explain the distinction of *ἐξωτερικά* and *ἀκροατικά* in the writings of Aristotle, and the use of the spurious correspondence between Alexander and Aristotle on this point infects the whole passage.

Herter imagines that in the dialogues themselves he can discern the change of Plato's pedagogical method from colloquy to lecture; and he appeals, of course, to the tradition of

that Plato pursued or studied philosophy, not that he taught or lectured. (The ultimate source of the statement of Alexander is, of course, Arist. *Met.* A 6 [cf. *Diog. Laert.* iii. 8]; and Diels's conjecture of *Ἡρακλείδης* for *Ἡράκλειτος* [*Dox. Gr.*, p. 150, n. 2] is therefore unnecessary. It is far more probable that the words *ἡ ἀκαδημία εἶτα ἡ τῆς πόλεως τῆς παρὰ τὸν Κολωνίαν* were interpolated by Diogenes from another source and context [cf. *Wilamowitz, Platon*, II, 2].)

the lecture on the Good as evidence that this change really did occur. Here a slight novelty of interpretation is introduced, for Herter not only denies, as others have done also, that the lecture on the Good could have been open to the public but also says that Plato must have intended it to be an "introduction for beginners." Now Aristoxenus certainly understood Aristotle to have meant that it was a public lecture; but, public or not, it would have been a strange "Einführung der Neulinge," which, according to all accounts, Aristotle, Speusippus, Xenocrates, and such members of the Academy attended and found enigmatic.²

From what is reported of this lecture and from the *Meno*, the *Republic*, and the *Laws*, Herter concludes that the course of instruction in the Academy must have begun with mathematics and that the mathematical studies must have been followed by instruction and training in dialectic; but he says nothing of the fact that in the *Republic* the study of dialectic is expressly postponed until the age of thirty and that, even then, between thirty and thirty-five it is dialectic as an exercise in abstract thinking that is prescribed rather than the highest philosophy, the study of philosophy being postponed until the age of fifty.³ Herter, however, believes that dialectic in the curriculum of the Academy was not merely formal but was concerned with ethical content, i.e., was a search for the idea of Good, and that the revelation of the world of ideas in the light of the idea of Good was the final purpose of the course of instruction. He goes on to say that the theory of ideas implies the attempt to make the phenomenal world approximate more nearly the ideal world and so leads to concern with practical politics. Plato, he believes, wanted to educate in his school young men who could reform the world according to his political ideals; but the failure of the attempt in Sicily meant that for the future the Academy was to be significant not as a political association but as a scientific institute.

The rest of the essay is concerned with the turn given to the theory of ideas which, Herter

² Cf. Cherniss, *The Riddle of the Early Academy* (Berkeley: University of California Press, 1945), p. 12, and nn. 56-60 (p. 90) with references.

³ *Ibid.*, pp. 68-70.

131 says, was decisive for the character of the Academy and of all the institutions derived from it. This decisive turn one might have expected to be the notorious identification of ideas and numbers. Herter does assume that Plato reduced all the ideas to numbers and even asserts that this identification occurred much earlier than is ordinarily supposed, since the influence of the Pythagoreans which Plato underwent during his early travels must, he thinks, have been responsible for it; but he does not explain why there is then no mention of such a doctrine in Plato's writings,⁴ nor does he take any notice of the conflicting evidence concerning the idea-numbers or of the difficulties involved in ascribing to Plato any such doctrine at all. The idea-numbers, however, detain him only briefly; it is not this doctrine but the method of diaeresis that he makes the decisive factor in the development of Plato's dialectic, for it was by means of this method, he says, that Plato tried at once to bridge the gap between the ideal and the phenomenal world and to develop the "organisation" of the world of ideas. Yet what he says in the text about the "bridging of the gap" he effectively retracts in his notes: "An essential transition from the ideas to the phenomena is naturally excluded now as before; Plato adheres to the division of the two domains and remains a dualist as he was" (p. 37: note on p. 22, l. 24). As diaeresis was not meant to "bridge this gap," however, so Plato never meant it to produce an ontological map of the world of ideas. Herter cites *Sophist* 235 C as proof of the "Vollständigkeitsanspruch des diaeretischen Verfahrens," by which he means that, when diaeresis was properly performed, "die Ideenwelt war in ihrem Gesamtbestande erfasst." This passage makes no such claim, however; it says only that diaeresis is a sure heuristic method, a way of making the search for any single γένος exhaustive. *Politicus* 265 A and 266 E by themselves show clearly enough that

⁴ Herter uses in lieu of evidence for the idea-numbers in the dialogues a fantastic *argumentum e silentio*: he would explain what he calls Plato's "restraint" concerning the objects of the two activities, dialectic and mathematics, in *Republic* 510 B ff. as an indication that Plato already envisaged the ideas as "geometrical-arithmetical entities" (pp. 35-36: note on p. 20, l. 31).

Plato did not see in the diaeretical process a full reproduction of the world of ideas, for he says there that longer and shorter forms of the procedure can give the same result.⁵

Herter lays the usual stress upon the fragment of Epicrates and the anecdote in Diogenes Laertius vi. 40 in order to argue the importance of diaeresis in the Academy and concludes that such activity encouraged investigation in the natural sciences. Speusippus' *Ὀμολα* appears to him to support this conjecture; but no notice is taken of the fact that Speusippus had a conception of diaeresis entirely different from Plato's and that his epistemological theory as distinguished from Plato's required him to attempt an *exhaustive* classification of all entities.⁶ Herter's reconstruction of the Academy is admittedly a replica of Usener's: the members were engaged together in a single great program of research, though advanced students, like "Privatdozenten" or "teaching assistants," were intrusted with their own courses within the general framework; and here they laid the foundation of that systematization of the sciences of which Aristotle's work was the continuation, although Aristotle could not maintain the unity of all the disciplines in their common relation to the Good that was the essence of the Academic conception of the universe. This is a picture to arouse the enthusiasm of the modern academician; but that is not reason enough for accepting it as a historically correct likeness of Plato's Academy.

⁵ Cf. Cherniss, *Aristotle's Criticism of Plato and the Academy*, I (Baltimore: Johns Hopkins Press, 1944), 46-47.

⁶ Cf. Cherniss, *The Riddle of the Early Academy*, pp. 37-43.

PLATO AS MATHEMATICIAN

Proclus in his summary of the history of mathematics says that Plato's concern for these studies caused them and particularly geometry to make very great progress, and in support of this judgment he cites "the obvious fact that Plato packed his writings with mathematical discussions and everywhere awakens admiration for mathematics in those who take up philosophy."¹ The *Herculanean Index* more specifically asserts that mathematics made great progress under the direction of Plato, who formulated problems which the mathematicians zealously investigated;² but even this does not necessarily mean that Plato contributed to the solution of any of the problems that he propounded, and that he in fact did not do so could be inferred from the very words here used, ἀρχιτεκτονούντος . . . Πλάτωνος, interpreted after Plato's own statement, ἀρχιτέκτων γε πᾶς οὐκ αὐτὸς ἐργατικὸς ἀλλ' ἐργατῶν ἀρχων.³ Most modern scholars have come to the conclusion that Plato, while he exercised great influence as an enthusiastic advocate of mathematical study and an intelligent critic of mathematical methods and aims, did little or no original work in technical mathematics himself;⁴ but extreme positions have been taken up by others. Erich Frank has contended that Plato the creative mathematician is a mere fable, that he was in fact scarcely able to keep abreast of the mathematical developments of his time, and that nothing is more perverse than to suppose that he presents a true picture of contemporary science. Others have insisted, however, upon ascribing to Plato an important part in the mathematical discoveries and developments of the fourth

¹ *In Primum Euclidis Elementorum Librum Commentarii* ed. Friedlein, p. 66, 8-14.

² *Academicorum Philosophorum Index Herculaneensis* ed. S. Mekler, col. Y, 2-7 (pp. 15-16). The author is apparently quoting a source whose name has been lost from the papyrus (cf. φη<σ>ι: Y, 2).

³ *Politicus* 259 E.

⁴ Cf. Heath, *A History of Greek Mathematics*, I, p. 316 and *A Manual of Greek Mathematics*, p. 171; Heiberg, *Geschichte der Mathematik und Naturwissenschaften im Altertum*, p. 10; A. Rey, *La Science*

century,⁶ and to the establishment of this position Dr. Mugler's new and extensive study⁶ is devoted.

Mugler maintains (pp. xvii-xix) that interpreters have been mistaken in drawing from the pedagogical plan of *Republic VII* any general conclusion concerning the relative position which Plato assigned to philosophical speculation and mathematics, that in Plato's own intellectual experience the relation of the two was the reverse of that assigned to them there, mathematics being more often the end of metaphysical reflection than its point of departure, and that he recommended mathematical study to his pupils not merely as a propaedeutic for dialectic but primarily because from his own experience he believed that subsequent philosophical meditation upon the fund of knowledge thus acquired would often lead to mathematical discoveries. Mugler does not say how this thesis is to be reconciled with the fact that at the end of the *Laws* (965 B 1 ff.) dialectic is still declared to be the supreme science and that in such a late passage as *Philebus* 57 D ff. as well as in an early one like *Euthydemus* 290 C, neither of which is "pedagogical," the supremacy of dialectic and its priority to mathematics are affirmed as emphatically as in *Republic VII*; ⁷ he simply says that a close interpretation of the "meta-

dans l'Antiquité, IV, pp. 291 and 296. Z. Jordan in the French résumé of his Polish book, *Des Fondements Mathématiques du Système de Platon* (Poznan, 1937), says (p. 289): "...la place occupée par Platon dans l'histoire des mathématiques n'est pas due à ce qu'il les ait enrichies de façon directe. On peut parler de Platon en tant que mathématicien seulement dans ce sens que c'est lui le premier qui s'est adonné à la méthodologie des mathématiques, qui n'a cessé de réfléchir sur l'objet de la connaissance mathématique, qui a analysé les méthodes pratiquées et conçu des méthodes nouvelles."

⁶ Erich Frank, *Logos*, IX (1920-21), p. 253 and *Plato und die sogenannten Pythagoreer*, p. 65. Seth Demel, *Platons Verhältnis zur Mathematik* (Leipzig, 1929) expressly opposes Frank's thesis and finds the strongest proof of Plato's mathematical creativity in his unique friendship with Theætetus (p. 24)!

⁶ *Platon et la Recherche Mathématique de son Époque*, by Charles Mugler (Strasbourg-Zurich, Éditions P. H. Heltz, 1948. Pp. xxviii + 427).

⁷ On the *Laws* cf. Shorey, *Unity of Plato's Thought*, p. 87 and A. E. Taylor, *Plato*, p. 497; on the *Philebus* cf. Hackforth, *Plato's Examination of Pleasure*, p. 113.

physical" dialogues and the *Timaeus* will substantiate his contention, and it is therefore necessary to examine his interpretation in detail.

This interpretation begins with a chapter, the purpose of which is to demonstrate that Plato "dematerialized" the foundations of geometry by eliminating sensory and empirical implications from its terms and definitions. The method of the demonstration is to compare the terms and definitions which appear in Plato's writings with those used by his predecessors and by the later geometers. No other procedure is possible; but, since of Plato's predecessors and early contemporaries there are extant in the original words only a very few sentences which deal with mathematics and since moreover Plato in his dialogues usually avoids technical terminology and linguistic innovation,⁸ it is hazardous to draw any general conclusion from such a comparison, even though it is plausible to assume that Plato would have welcomed a "dematerialization" of geometrical terms since he insisted that the objects of the geometer's investigation are not the material figures that he draws but absolute, immaterial, and atemporal realities.⁹ In fact, however, Mugler's detailed study of Plato's terminology for space, place, dimension, line, surface, figure, area, and solid produces little or no support for his conclusion in this chapter. Plato's use of αὖξη for "dimension," for example, scarcely suits the hypothesis of reform; and neither does the definition of "straight" in *Parmenides* 137 E.¹⁰ It may be that Plato's objection to the point as a "geometrical dogma"¹¹ explains the absence from his writings of a general term for point; but the objection in this case was not to the term used by geometers at the time but to the assumption that

⁸ Cf. *Theaetetus* 184 C, *Politicus* 261 E 5-7; and Plato's apology for introducing a new technical term: *Theaetetus* 182 A 8 ff.

⁹ Cf. *Euthydemus* 290 C 1-3, *Republic* 510 D and 527 B 5-8.

¹⁰ Cf. Heath, *Euclid: The Elements*, I, pp. 165-166.

¹¹ Aristotle, *Metaphysics* 992 A 20-22. Mugler does not consider Ross's punctuation of this sentence; but in any case he is mistaken in interpreting it to mean (p. 19) that Plato sought to define the point as the beginning of a line. The meaning given by Alexander (*Metaph.*, p. 120, 4-6) is right: τὸ μὲν οὖν σημεῖον οὐκ ἔλεγον εἶναι τι οὐδὲ ὀνόμαζεν, ἐκάλει δὲ ἀρχὴν τῆς γραμμῆς πολλάκις ἢν ἄτομον γραμμὴν ἔλεγον.

there is an entity which this or any alternative term can signify.¹² The word βάθος according to Mugler (pp. 10-13) was freed of its concrete significance and introduced to geometrical terminology in the abstract sense of "third dimension" by Plato, who was the first occidental thinker to recognize clearly the three-dimensional character of geometrical space; but Plato's own use of τὸ βάθος μετέχον as a term that needs no explanation (*Republic* 528 B) makes this conclusion improbable, and it is impossible if Gorgias really wrote σῶμα δὲ τυγχάνον τριπλοῦν εἶσται· καὶ γὰρ μῆκος καὶ πλάτος καὶ βάθος ἔξει.¹³ It is indulging in the merest fantasy to argue further, as Mugler does (pp. 13-17), that Plato conceived time to be a fourth dimension and set up a hierarchy of spaces beginning with two-dimensional planar space and rising through stereometrical space to four-dimensional kinematic space. The "spatial terminology" used of the intelligible world (νοητὸς τόπος, ἀληθείας πεδῖον, etc.), which is somehow supposed to justify this conclusion (pp. 14-15), is later (p. 279) admitted to be only the symbolic language of myth; and *Timaeus* 52 A - C is explicit in divorcing real being from space and position in every sense whatever. Nor does *Republic* 528 D ff., on which Mugler chiefly depends, support the notion that astronomical space is considered to be a kinematic space of four dimensions hierarchically "above" stereometric space; astronomy is there taken as only one example of the study of movement, of which another on the same level as

¹² Plato's nephew and successor, Speusippus, used the term στιγμή for "point" (frag. 4, lines 40, 45, 48, 70 [Lang]); for him the point was a real entity (cf. Cherniss, *Aristotle's Criticism of Plato and the Academy* I, n. 322 [p. 397]). On the other hand, one cannot be certain that the "later" term σημεῖον was not already used for "point" in Plato's time and earlier (cf. Euripides, frag. 382, 3-4 [Nauck²]). Mugler in his treatment of the terms for surface (pp. 32-37) has also overlooked Speusippus' use of ἐπιφάνεια (frag. 4, lines 60 and 70 [Lang]).

¹³ Fragment B 3, 73 (II, p. 281, 6-7 [Diels-Kranz]). Even if there were any evidence against the authenticity of the words used, there would still be no reason to doubt that the argument with its assumption of the three-dimensionality of geometrical space occurred in Gorgias' treatise. Aristotle assumes that the definition of σῶμα as τὸ ἔχον τρεῖς διαστάσεις is generally accepted (*Topics* 142 B 24-25, *Physics* 204 B 20, *Metaphysics* 1016 B 27-28, etc.).

astronomy both as rightly and wrongly pursued is the science of harmony.¹⁴

It is the thesis of the second chapter that Plato made decisive and fertile innovations in the theory of geometrical similarity. This thesis is made to depend largely upon the argument that Plato invented the technical term ἴσος καὶ ὅμοιος to designate the congruity of figures. Mugler contends that this terminological innovation was inspired by the desire to make the notion of equality by superposition derivative by representing it as a special case at once of equivalence (ἰσότης) and of similarity (ὁμοιότης) so as to avoid the empirical factor of motion in a question concerning the fundamentals of geometry and that this is another manifestation of the "Parmenidean tendency" which characterizes Plato's geometrical reflections.¹⁵ The significance of this innovation is appealed to again and again to support the most various hypotheses in the subsequent chapters of the book. Yet Mugler cites (pp. 54-55) from Plato's writings only one occurrence of the term, *Timaeus* 55 A (... ὅλον περιφεροῦν διανεμητικὸν εἰς ἴσα μέρη καὶ ὅμοια ...), which even if ἴσα καὶ ὅμοια here was meant to carry the technical sense indicated, is scarcely sufficient to prove that Plato was the inventor of the term; and the one passage that he adduces (p. 62) to testify to Aristotle's acquaintance with the technical expression does not contain it at all. In this passage, *Metaphysics* 1054 A 29-32 (ἴστι δὲ τοῦ μὲν ἐνός ... τὸ ταῦτό καὶ ὁμοιον καὶ ἴσον τοῦ δὲ πλήθους τὸ ἕτερον καὶ ἀνόμοιον καὶ ἄνισον), Mugler takes ὁμοιον καὶ ἴσον together to mean "equality" and ἀνόμοιον καὶ ἄνισον together to mean "inequality"; but in that case Aristotle should have written τὸ ταῦτόν καὶ τὸ ὁμοιον καὶ ἴσον ... τὸ ἕτερον καὶ τὸ ἀνόμοιον καὶ ἄνισον, and moreover the parallel passage at

¹⁴ *Republic* 530 C — 531 D, cf. *Laws* 747 A; observe also that in *Laws* 747 A and 817 E plane and solid geometry are considered to be a single study, so that there is clearly no "hierarchical" difference between the "spaces" which they study. Mugler does not mention Aristotle's argument to prove that there can be no more than three dimensions (*De Caelo* 268 A 9 - B 5), though he refers to Ptolemy's lost treatise on the subject.

¹⁵ Mugler (pp. 58-59) suggests that the geometers from Euclid to Archimedes sought for the same reason to avoid the method of superposition; but cf. *contra* Heath, *Euclid: The Elements*, I, pp. 225-6.

1003 B 33-36 (. . . λέγω δ' ὅλον περὶ ταύτου καὶ ὁμοίου καὶ τῶν ἄλλων τῶν τοιούτων) shows that ταυτό, ὅμοιον, and ἴσον in 1054 A 29-32 are three separate and parallel terms.¹⁶ Much stranger than this interpretation, however, is Mugler's contention (p. 103) that Plato's invention of the technical term ἴσος καὶ ὅμοιος is proved by *Parmenides* 131 A and 132 E because he "there opposes to each other the two determinations of magnitude and form which are united in this term to designate geometrical congruity." In the former of these passages, ὅλον ὁμοιότητος μὲν μεταλαβόντα ὅμοια, μεγέθους δὲ μεγάλα (131 A 1), Mugler says that ὁμοιότης and μέγεθος are nothing but the εἶδος and μέγεθος of Euclid's *Data* and in the latter, οὐ δ' ἂν τὰ ὅμοια μετέχοντα ὅμοια ᾗ, οὐκ ἐκείνο ἔσται αὐτὸ τὸ εἶδος; (132 E 3-4), that "Plato uses in connection with similarity the term εἶδος by which Euclid designates the characteristic element of similar figures." A glance at the whole sentence of 130 E - 131 A shows that ὁμοιότης and μέγεθος are not, however, set off against each other or treated as a special pair, that ὁμοιότης is a reference to the ideas of ὁμοιότης and ἀνομοιότης mentioned by Socrates in 129 A ff., and that here along with it are listed not only μέγεθος but also κάλλος and δικαιοσύνη as examples of ideas. In 132 E the term εἶδος is used in connection with similarity (ὅμοια) in no special sense but exactly as it is in connection with μέγεθος, κάλλος, and δικαιοσύνη in 130 E - 131 A. In short, Plato says that μέγεθος is an εἶδος too¹⁷ for εἶδος here means "idea," which, of course, it does not in Euclid's *Data*.¹⁸

¹⁶ A few lines later, 1054 B 2, Aristotle uses the term ἴσα καὶ ἰσογύνα where, as Mugler seems to recognize (p. 62), he might have been expected to say ἴσα καὶ ὅμοια if he had just previously used this phrase as the technical term sought by Mugler.

¹⁷ Cf. also 131 C - D, *Phædo* 65 D - E and 100 E - 101 A.

¹⁸ It is true, as Mugler says (p. 105), that Plato often uses εἶδος with the implication of shape or geometrical figure; but he uses it still more often in contexts which preclude any such significance whatever, for example in *Laches* 191 D (ἐν σύμπαντι τῷ πολεμικῷ εἶδει), *Gorgias* 454 E (δύο εἶδη πειθοῦς) and 473 E (εἶδος ἐλέγχου), *Republic* 363 E (εἶδος λόγων), *Timæus* 51 A (ἀνόρατον εἶδος τι καὶ ἀμορφον to signify χώρα, the formless receptacle, cf. 49 A 3-4), *Philebus* 32 C 12 (εἶδος used of ἀπειρον, cf. 16 D 7: τὴν τοῦ ἀπειρου ἰδέαν). The evidence therefore does not "seem to indicate that Plato in imagining the metaphysical εἶδος took his start from the theory of the geometrical εἶδος."

All that remains then of Mugler's evidence for Plato's use, not to mention his invention, of ἴσος καὶ ὅμοιος as a technical geometrical term is *Timaeus* 55 A; and that even ἴσα μέρη καὶ ὅμοια in this passage is evidence of such a *terminus technicus* becomes questionable when one considers that the other collocations of ἴσος and ὅμοιος in Plato's writings occur in non-geometrical passages¹⁹ and that Aristotle, who could still use ὅμοιος to mean "equal" in a geometrical sense, also used the combination ἴσος καὶ ὅμοιος only in non-geometrical contexts.²⁰ Mugler does not explain or even mention these occurrences of the phrase.

The earliest extant enunciation of the conditions of geometrical similarity seems to be Aristotle's reference in *Anal. Post.* 99 A 13-14; but Mugler believes (p. 106) that an allusion to these conditions is contained in the expression τὸ ταῦτὸν πεπονθὸς ὅμοιον which occurs in *Parmenides* 139 E and 148 A and that this is a technical term of the older geometers, a survival of which is to be seen in ἀντιπεπονθέναι as used by Euclid in *Elements* VI, Prop. 14 etc. Mugler might have cited *Metaphysics* 1018 A 15-17 where Aristotle gives τὰ πάντα ταῦτὸ πεπονθότα and τὰ πλείω ταῦτὸ πεπονθότα along with ὧν ἡ ποιότης μία as meanings of ὅμοια; but, though this combined with the passages of the *Parmenides* makes it seem probable that τὰ

¹⁹ *Laws* 741 A: τὴν ὁμοιότητα καὶ ἰσότητα καὶ τὸ ταῦτὸν καὶ ὁμολογούμενον τιμῶντες κτλ. *Laws* 837 A: φίλον μὲν πον καλοῦμεν ὁμοιον ὁμοίᾳ κατ' ἀρετὴν καὶ ἴσον ἰσῳ. *Parmenides* 140 E: ἰσότητος χρόνου καὶ ὁμοιότητος μεθέξει (though it is not certain that χρόνου here depends upon the compound ἰσότητος καὶ ὁμοιότητος, cf. Cornford, *Plato and Parmenides*, p. 127, n. 1). As for *Parmenides* 161 C (εἰ γὰρ εἴη ἴσον, εἴη τε ἂν ἤδη καὶ ὁμοιον ἂν εἴη αὐτοῖς κατὰ τὴν ἰσότητα), this no more proves that Plato considered "equality in the strict sense," i.e. "equality by superposition" to be "a particular case of similarity," as Mugler thinks it does (pp. 57, 103-4), than does *Parmenides* 148 A (ἢ δὲ τὸ ἐν ἑτέρῳ τῶν ἄλλων πέπονθεν εἶναι, κατ' αὐτὸ τοῦτο ἅπαν ἅπασιν ὁμοιον ἂν εἴη) show that he thought difference in the strict sense to be a particular case of similarity (cf. *Philebus* 13 D).

²⁰ *Politics* 1287 B 33: ὁ γὰρ φίλος ἴσος καὶ ὁμοιος. *Politics* 1295 B 25-26; βούλεται δὲ γὰρ ἡ πόλις ἐξ ἴσων εἶναι καὶ ὁμοίων ὅτι μάλιστα. Cf. *Politics* 1279 A 9-10, 1288 A 1, 1299 B 23-24. For ὁμοιος meaning "equal" cf. *De Caelo* 296 B 20, 297 B 19, 311 B 33-34. In [Aristotle], *Problems* 914 A 22-23 ἴση καὶ ὅμοια is applied to the comparison of lines.

ταὐτὸ πεπονθότα was an accepted definition of ὅμοια, there is nothing to indicate that it was ever meant as a definition of geometrical similarity. The passages of the *Parmenides* have nothing to do with this concept,²¹ and the examples of ὅμοια given by Aristotle in the parallel passage (*Metaphysics* 1054 B 9-13) show that for him the definition in question had no specific mathematical implications at all.

Unambiguous examples even of ὅμοιος as a technical term for geometrical similarity are difficult to find in Plato's writings.²² One would expect to find it so used where Plato says instead τοιοῦτῃ χωρίῳ ὅλον in *Meno* 87 A 5, if the interpretation of this passage given by E. F. August and S. H. Butcher and adopted by Heath and Mugler is correct as I believe it is. Benecke had argued that τοιοῦτῃ ὅλον cannot mean "similar" and that, had Plato here used it in that sense, he should have added the condition "not similarly situated." Heath rejected this argument "in view of the want of fixity in mathematical terminology in Plato's time and of his own habit of varying his phrases for literary effect";²³ but Mugler contends (pp. 76-77) that Plato purposely refrained from using ὅμοιον here because in his technical terminology this term was ambiguous, meaning both "similar" and "similarly situated." The evidence for Plato's use of ὅμοιος with the technical meaning later expressed by ὁμοίως κείμενον Mugler finds in *Timaeus* 33 B where the spherical cosmos is called πάντων τελευτάτον ὁμοιότατόν τε αὐτὸ ἐαυτῷ σχημάτων. By this, he contends (pp. 72-74), Plato meant ὁμοιότατον κείμενον αὐτὸ ἐαυτῷ in the sense that the sphere alone of solids admits of an infinite number of displacements in any direction while still in any position remaining similarly situated to itself in any other. The passage so interpreted would testify not only to Plato's use of

²¹ See note 19 *supra* and cf. Cornford, *Plato and Parmenides*, p. 125.

²² Mugler holds (p. 81) that ἐκ πολλῶν ὁμοίων (*Timaeus* 81 C 6) and εἰς ὁμοιότητα ἑαυτοῖς (81 D 2) are such examples, although the term does not occur in the earlier parts of the *Timaeus* where there is reference to triangles of the same kind but of different sizes (e.g. 57 C - D).

²³ *A History of Greek Mathematics*, I, p. 302, n. 1. Everyone admits that in *Meno* 83 D 6 "similar" is rendered by τοιοῦτος but the nature of Socrates' interlocutor there would explain the purposeful avoidance of a technical mathematical term. Mugler (pp. 75-76) agrees with Benecke in denying that τοιοῦτῃ ὅλον in 87 A 5 can be explained in the same way.

ὁμοιον in the technical sense of "homothetic" (ὁμοίως κείμενον) but also to the extension of the theory of similarity from plane geometry to stereometry. Mugler appears to think that his interpretation is proved because the superlative ὁμοιότατος has no sense here if one translates ὁμοιος by "like," since all figures are equally like themselves. This objection is valid against the translation of Martin, Rivaud, and Robin ("la plus complètement semblable à elle-même"), but the alternative is not Mugler's interpretation. In *Timaeus* 34 B, where the epithets applied to the spherical cosmos in 33 B are repeated, ὁμοιότατον αὐτὸ ἐαυτῷ is replaced by ὁμαλόν;²⁴ and Cornford, in rendering both, rightly uses the same word, "uniform," which is adequate to the meaning, for, as A. E. Taylor explains, the point of ὁμοιότατον αὐτὸ ἐαυτῷ is that "the sphere is a surface, as the circle is a plane curve, of constant curvature, and the only such surface known to Plato and the ancients generally."²⁵ Whatever mathematical implications are logically involved in this notion of uniformity, there is no reason to interpret the phrase in *Timaeus* 33 B as Mugler does or to see in it any

²⁴ Proclus explains the former phrase in 33 B by αὐτὸ ἐαυτῷ συνεχὲς καὶ ὁμαλὲς καὶ τεταγμένον (*In Timaeum*, II, p. 72, 4-5 [Diehl]). According to him (*ibid.*, p. 75, 5-15) all polygons, angular figures, and figures of several surfaces are ἀνόμοια and ἐστὶ ὁμοιον ἐν στερεοῖς ἡ σφαῖρα μόνον σχημάτων. For the sphere as alone having a single surface cf. Aristotle, *De Caelo* 286 B 23-32 where there is a reference to the *Timaeus* for this notion.

²⁵ Cornford, *Plato's Cosmology* (1937), pp. 54 and 58; A. E. Taylor, *A Commentary on Plato's Timaeus*, p. 102. In *De Caelo* 285 B 4-5 Aristotle's τὴν ὁμοιότητα τοῦ σχήματος can mean only the uniformity of the sphere in this sense; cf. [Aristotle], *De Xenophane* 977 B 1 (πάντη δ' ὁμοιον ὄντα σφαιροειδῆ εἶναι) and Alexander *apud* Simplicius, *Phys.*, p. 895, 16-17 (ὁμαλῆς γὰρ καὶ αὐτῇ [scil. ἡ ἐπὶ τοῦ κύκλου κίνησις] διὰ τὸ πανταχόθεν ὁμοίως περιεγεί τῆς κυκλικῆς γραμμῆς). It is in the same sense that Plutarch, to explain why the lines of intersection of two round bodies are always circular, says (*De Facie* 932 F): πανταχόσε χωροῦσαι δι' ὁμοιότητα, "since they have everywhere a uniform tendency" (i.e. a constant curvature). In [Aristotle], *Problems* 915 A 35-36 the "round" (τὸ περιφερές), which is called σχῆμα κάλλιστον is defined by the epithet of *Timaeus* 33 B, τὸ αὐτὸ αὐτῷ ὁμοιότατον; and Simplicius (*De Caelo*, p. 411, 4-9) takes as a reminiscence of *Timaeus* 33 B the statement of Ptolemy (*Syntaxis* I, 2 [p. 10, Halma]): ὁμοιομερεῖς δὲ ἐπιφάνειαι μόναι ἢ τε κυκλοτερῆς ἐν τοῖς ἐπιπέδοις καὶ ἐν τοῖς στερεοῖς ἡ σφαιρική.

evidence for the inferences which he draws from that interpretation.

It is naturally in Plato's construction of the regular polyhedra, which are the corpuscles of the material world, that Mugler looks for the application of the theory of geometrical similarity as an "organizing principle of cosmic importance." Part of Chapter II and all of Chapter III are devoted to showing how by employing the recent theorem that limited the number of the regular polyhedra to five, by taking as determinative of the polyhedra their faces alone, the surface-area of which is the invariant in all rearrangement, and by reducing the faces of these regular solids to a limited number of triangles, which are then regarded as the ultimate elements of the physical world, Plato imposed geometrical discipline upon the unlimited polymorphism of the Atomists and introduced into the physical sciences the principle of economy.²⁶ Unfortunately Mugler interprets *Timaeus* 57 C - D to mean that the elementary triangles, the half-square and the right-angled scalene,²⁷ exist in different sizes; and from this he infers that, although the supposed technical term *ὁμοιως* does not occur in this passage, the elements of the physical world are two series of figures, the members of either series being an infinite number of similar triangles infinitely various in magnitude (pp. 79-81, p. 119). He is apparently unaware of Cornford's demonstration that this interpretation is incorrect, that the variation in size of the molecules of any one kind is the result of the different *number* of elementary triangles used in the composition of the squares and equilateral triangles

²⁶ For this interpretation of Plato's purpose cf. e.g. Shorey, *A.J.P.*, IX (1888), p. 416; P. Friedländer, *Platon*, II, p. 610 and more recently *Univ. of California Publications in Philosophy*, XVI (1949), pp. 232-3.

²⁷ From neither of these triangles can the faces of the dodecahedron be constructed; and Mugler holds (pp. 127-129) that this was the reason why Plato, inspired by the principle of economy, discarded the dodecahedron in favor of the simpler cube, since he had only four general kinds of matter with which to equate corpuscular patterns. Plato may well have reasoned so; but one should not overlook the fact that he also had reasons of tradition for assigning the dodecahedron to the universe as a whole (cf. *Phaedo* 110 B with Wytttenbach's note *ad loc.* and Heath, *A History of Greek Mathematics*, I, pp. 159-162).

which are the faces of the four regular solids, that the magnitudes of the squares and equilateral triangles and of the solids constructed of them are not infinitely various but definitely limited and have a definite mathematical ratio to one another, and that the elementary half-squares and right-angled scalene triangles exist not only each in a single form but each in a single atomic magnitude.²⁸ Knowledge of Cornford's interpretation would have enabled Mugler to make even more than he does of the "economy" of Plato's mathematical physics, although, as will subsequently appear, it would also have removed the support upon which he rests several important arguments.²⁹

At the end of Chapter I Mugler had said that Plato "well before Euclid had contributed to the establishment of the Euclidean character of Greek space." Now at the beginning of Chapter IV he says that "Plato is Euclidean without knowing it," that he was aware of the contradiction between his finite universe and the implications of a geometry of parallel lines, and that he was expecting the resolution of the contradiction in the direction of a non-Euclidean geometry analogous to that of Riemann (pp. 141-149). The evidence for this is chiefly silence: in Plato's works there is no coherent theory of the infinite either mathematical or physical,³⁰ straight lines when mentioned are always treated as merely segments, and there is no mention of parallels although Aristotle's references

²⁸ Cornford, *Plato's Cosmology*, pp. 230-239; cf. Friedländer, *Univ. of California Publications in Philosophy*, XVI (1949), p. 234 and Figures 1-4.

²⁹ A slight example is his interpretation of μέγα in *Timaeus* 81 C 6, which he takes to be equivalent to κέντρον in 54 E 2, the point at which four elementary half-squares meet in the construction of the square and six elementary right-angled scalene triangles meet in the construction of an equilateral triangle (pp. 18, 121-122). He could not have adopted this interpretation had he seen that there are square and equilateral faces which have more or fewer elements than these and in many of which there is no such single "centre."

³⁰ Mugler does not express himself with respect to such statements of Aristotle as that in *Physics* 206 B 27-33: Πλάτων διὰ τοῦτο δύο τὰ ἀπειρα ἐποίησεν, ὅτι καὶ ἐπὶ τὴν αὐξὴν δοκαὶ ὑπερβάλλειν καὶ εἰς ἀπειρον ἵνα καὶ ἐπὶ τὴν καθάρσιν.

to them show that geometers of the Academy were occupying themselves with the problem of parallelism. There are indications in Aristotle (e.g. *Anal. Prior.* 65 A 4-9) that attempts to demonstrate the existence of parallels had already been made, but there is nothing to show that the failure of these attempts had suggested to anyone the possibility of a non-Euclidean geometry.⁸¹ If, as Mugler maintains (pp. 141-2), Plato did not suspect that his acceptance of geometrical similarity committed him to the geometrical infinity implied by parallel lines,⁸² it is difficult to see why we must assume that

⁸¹ It might be thought that Aristotle envisaged such a possibility when he wrote (*Physics* 200 A 18-19): ἀλλ' εἴγε τοῦτο (i.e. that the sum of the angles of a triangle equals two right angles) μὴ ἔστιν, οἷδὲ τὸ εὐθὺς ἔστιν (cf. Heath, *Mathematics in Aristotle*, p. 101); but in reality this is no more evidence that he conceived of such a possibility (cf. *Anal. Prior.* 66 A 11-15) than *De Anima* 406 B 4-6 is evidence that he conceived as possible the doctrine of bodily resurrection.

⁸² Mugler elsewhere insists (pp. 241-2, 257-8, and especially 388) that οὐκοῦν εἴη ἂν τοιοῦτον χωρίον καὶ μείζον καὶ πλαττον (*Meno* 82 C 3-4) was consciously intended as a postulate of the Euclidean structure of space. I think that it is on the contrary merely a precaution against the slave's denying after his first set-back that a square twice the size of the first can be constructed at all; it could scarcely have been meant to carry the technical geometrical import that Mugler reads into it especially in a passage where the immediately preceding definition is not even a sufficient definition of a square (82 B 10 - C 2; Mugler [p. 388] erroneously takes ταυτασι τὰς διὰ μέσον in 82 C 2-3 to mean "diagonals," in which case the conditions stated would be sufficient, but in fact this means the lines midway between the sides of the square and parallel to them [cf. Thompson, *The Meno of Plato*, p. 130]). Since Mugler does, however, take *Meno* 82 C 3-4 to be a conscious enunciation of the homogeneity of space, he is all the less justified in supposing (pp. 258-65) that the wording of *Timæus* 55 A (μίαν στερεάν γωνίαν ποιῶν, τῆς ἀμβλυτάτης τῶν ἐπιπέδων γωνιῶν ἐφεξῆς γεγονυῖαν) was chosen in order to avoid the equation with two right angles because Plato shrank from the difficulties involved either in postulating the equality of all right angles (Euclid, *Postulate* 4) or in demonstrating this equality by application which would in turn involve the assumption of the invariability of figures. If he had consciously postulated the homogeneity of space, there was no reason for him not to recognize that he had in fact postulated the equality of all right angles; and, if he merely assumed the former without an explicit postulate, as he does throughout the *Timæus* (so Mugler, p. 258), it is most probable that he assumed the latter too. The seemingly strange wording of *Timæus* 55 A, which Mugler like Taylor correctly interprets as not involving any discontinuity of

he was aware of the incompatibility between his doctrine of a finite universe and the geometry of parallel lines.

The problem of infinity has a temporal as well as a spatial aspect. Mugler contends that Plato rejected the conception of cyclical time in the sense of an endless succession of exactly identical cosmic periods, though this and the conception of a finite universe had always gone together,³³ and had substituted for it the theory that time is a monodromic and irreversible flux comparable to the endless progression of the series of whole numbers (pp. 149-174). The phrase κατ' ἀριθμὸν ἰοῦσαν in *Timaeus* 37 D 6-7, which he calls (p. 174) "the most rigorous expression of Plato's ideas concerning the temporally infinite," is his evidence for this comparison, though under the influence of χρόνον . . . κατ' ἀριθμὸν κυκλουμένου (*Timaeus* 38 A 7-8) he specifies this progression both for time and for number as one of an evolution by means of cycles (pp. 155, 236, 238). It is more than doubtful that by κατ' ἀριθμὸν in these passages Plato intended any comparison with the series of integers as infinite in any sense;³⁴ and, if he did not, Mugler's later connection of the passage with Theodorus' supposed method of demonstrating irrationality (p. 238), a far-

angular magnitude, was probably determined not by any question of the right angle as a determinate unit of angular measurement but by Plato's desire to define the "straight angle" which is revealed if the three equilateral triangles about any apex of the tetrahedron be "flattened out" into a plane. Since the Greeks did not consider the "straight angle" to be an angle at all (cf. Proclus, *In Euclidem*, p. 292, 18-22 [Friedlein] and Heath, *Euclid: The Elements*, III, pp. 48-49), it was not unnatural for Plato, if he wished to define it in terms of angularity, to call it what comes after the greatest obtuseness of plane angles.

³³ Contrary to what Mugler asserts, there is no evidence to prove that Anaximander held the doctrine of exact cyclical return and it is certain that Heraclitus neither held it nor was thought by Plato to have held it: cf. Heraclitus, frag. B 30 (I, pp. 157-8 [Diels-Kranz]); Vlastos, *Class. Phil.*, XLII (1947), p. 165; Plato, *Sophist* 242 E.

³⁴ The phrase probably means only "numerably" and is the correlate of ἀριθμοῖς in 39 C: οὔτε πρὸς ἀλλήλα συμμετροῦνται σκοποῦντες ἀριθμοῖς. Plato did elsewhere state that the series of integers is infinite (*Parmenides* 144 A); but his reference to "the perfect number of time" in *Timaeus* 39 D is enough to show that in speaking of time as a likeness of eternity κατ' ἀριθμὸν ἰοῦσαν or as κατ' ἀριθμὸν κυκλούμενος he had no intention of referring to the infinity of this series.

fetches connection in any case, is quite without foundation. Still more important for Mugler's reconstruction of Plato's mathematical philosophy, however, is his notion that in this passage Plato represents time as being derived from eternity by a kind of projection or emanation, a derivation which is equivalent to the evolution in discursive reason of the instantaneous intuition (pp. 164, 169-70). In the doctrine of time so interpreted he sees both the reconciliation of the Pythagorean apagogic demonstration of the irrational with the geometrical demonstration which he ascribes to Theodorus (pp. 224-38, 276-7) and at the same time the philosophical conception that made the formulation of the geometrical method of analysis possible and of which that method is a precise methodological adaptation (pp. 283, 307-10, 322). He even goes so far as to assert (pp. 281-2) that the theory of space in the *Timaeus* is a corollary of the theory of time there and that Plato, though he hesitated to take the final step in making space the extension of an unextended $\delta\mu\omicron\upsilon\ \pi\acute{\alpha}\nu$ as he had made time the development of an atemporal $\delta\mu\omicron\upsilon\ \pi\acute{\alpha}\nu$, was aware that his theory of space was incomplete and was prevented only by death from completing it in this sense.³⁵ In support of this notion Mugler finds in an opinion of Speusippus and his circle which is cited by Proclus the application of the theory of time in the *Timaeus* to the suppression of the distinction between problems and theorems (pp. 277-8). His use of this passage is typical of much of his interpretation. He says that the expression $\pi\acute{\alpha}\nu\tau\alpha\ \tau\alpha\upsilon\tau\acute{\alpha}$ which Speusippus used corresponds to the $\mu\acute{\epsilon}\nu\omicron\nu\tau\omicron\varsigma\ \alpha\iota\omega\nu\omicron\varsigma\ \epsilon\iota\varsigma\ \epsilon\nu\acute{\iota}$ of *Timaeus* 37 D 6 and recalls the Parmenidean $\delta\mu\omicron\upsilon\ \pi\acute{\alpha}\nu$, and he suggests that this term, $\pi\acute{\alpha}\nu\tau\alpha\ \tau\alpha\upsilon\tau\acute{\alpha}$, may signify besides its denial of temporal succession to the ideal world the assertion of the unextended coexistence of that real world in a single point. The words in question, $\acute{\alpha}\mu\epsilon\iota\nu\omicron\nu\ \cdot\iota\nu\ \phi\alpha\sigma\acute{\iota}\ \lambda\acute{\epsilon}\gamma\epsilon\iota\nu\ \acute{\omicron}\tau\iota$

³⁵ According to Mugler (p. 282) *Timaeus* 50 C 6 is Plato's promise to complete this theory; but the $\tau\rho\omicron\pi\omicron\nu\ \tau\iota\nu\acute{\alpha}\ \delta\upsilon\sigma\phi\rho\alpha\sigma\tau\omicron\nu\ \kappa\alpha\iota\ \theta\alpha\nu\mu\alpha\sigma\tau\omicron\nu\ \delta\upsilon\ \epsilon\iota\varsigma\ \alpha\upsilon\theta\epsilon\iota\varsigma\ \mu\acute{\epsilon}\tau\iota\mu\epsilon\nu$ there refers to $\mu\acute{\epsilon}\theta\epsilon\chi\iota\varsigma$, the ultimate explanation of which could never be given at all, as Plato had himself indicated in *Phaedo* 100 D. Certainly the derivation of space from ideal reality would not have provided that explanation; it would only have rephrased the problem. The remark, $\epsilon\iota\varsigma\ \alpha\upsilon\theta\epsilon\iota\varsigma$, then, is not a promise of later treatment but the regular Platonic formula for dismissing the matter.

πάντα ταῦτά ἐστι (Proclus, *In Euclidem*, p. 78, 4 [Friedlein]) mean simply "they say that it is better to assert that all propositions (πάντα) are of the same kind (ταῦτά)," by which is meant that all so-called problems are the same as theorems.³⁶ There is no such term here as πάντα ταῦτά and not the remotest connection with the αἰών or the theory of time in the *Timaeus*, whatever that may be.

Nothing in Plato's writings suggests that he ever contemplated deriving space from ideal reality. To the contrary, the *Timaeus* asserts most emphatically that the χωρισμός is an ultimate fact not to be explained away; and Mugler's assumption that Plato tried or intended to try to "overcome" it not only goes counter to the evidence of the dialogues but, like all such interpretations, is a subversion of the very motivation of Plato's philosophy.³⁷ Nor was Plato's doctrine of space consciously or unconsciously a corollary of his doctrine of time. Space, as Cornford has rightly emphasized (*Plato's Cosmology*, pp. 102-3), is treated under the heading of "Necessity" as being both a condition of phenomenal existence and a factor which limits the effect of Reason (*Timaeus* 47 E ff.), whereas time is a product of the rational ordering of the phenomenal world. Yet neither is time an emanation of eternity or in any sense derived from it. Time is produced by the motions of the heavenly bodies (*Timaeus* 38 E 4-5), the purpose of whose existence is to define and preserve the numbers of time (38 C 3-6) and the measurement of whose motions against one another is time (39 C - D). In short, time is the rational aspect of orderliness in the phenomenal world

³⁶ Cf. Heath, *Euclid: The Elements*, I, p. 25. Mugler reads Friedlein's text without indicating any knowledge of Tannery's suggestion (*Mém. Scient.*, IX, p. 126) that the true reading is πάντα ταῦτα ἐστι. If Tannery is right, as he probably is, there is not even the semblance of an excuse for Mugler's fantasy.

³⁷ Cf. *Timaeus* 52 A - D, which, be it noted, comes after what Mugler thinks is Plato's promise in 50 C to "complete" the theory of space in the direction of derivation (see note 35 *supra*). On the mistaken supposition that Plato must have attempted to overcome the χωρισμός cf. E. Hoffmann in Zeller's *Philosophie der Griechen*, II, 1⁶ (1922), pp. 1092-3 and *Platonismus und Mystik*, pp. 12-13, and A. Faust, *Der Möglichkeitsgedanke*, I, p. 72.

by which alone the flux of becoming can *simulate* the eternity of real being (*Timaeus* 39 D 7 - E 2).⁸⁸ There is no justification then for Mugler's use of the doctrine of time in the *Timæus* as the key to Plato's rôle in the development of the theory of irrationals and in the formulation of the method of analysis.

By far the greater part of Chapter IV is devoted to Plato's attitude towards the infinitesimal (pp. 174-249). Mugler first (pp. 175-188) explains as the result of confusion Aristotle's ascription to Plato of the doctrine of atomic lines; he is right, I believe, in his conclusion, although many of the arguments by means of which he reaches the conclusion are erroneous.⁸⁹ This conclusion, he says, is confirmed by Plato's knowledge of the "new procedure" employed by Theodorus to demonstrate the irrationality of $\sqrt{3}$, $\sqrt{5}$, ... $\sqrt{17}$. The remainder of the chapter is an attempt to establish Plato's part in the development of the theory of irrationality. It is too complicated and often too confused to be resumed in detail here; but it may fairly be said that as a whole this reconstruc-

⁸⁸ Cf. *De Generatione* 336 B 27 - 337 A 7 for the way in which Aristotle adapts to his purpose the passage of the *Timæus* on time as an imitation of eternity (Cherniss, *Aristotle's Criticism of Plato and the Academy* I, pp. 420 and 465-6).

⁸⁹ One is the argument from the infinite variety of sizes in which the two elementary triangles are supposed to exist. I have already observed (pp. 404-05 *supra*) that this is an erroneous interpretation of *Timæus* 57 C - D; and I take this opportunity to state that I once mistakenly used this passage of the *Timæus* myself for a similar purpose (Cherniss, *Aristotle's Criticism of Plato and the Academy* I, p. 126). Mugler's analysis of *De Lin. Insec.* 968 A 14 ff. and of *De Generatione* 316 A 11-12 is inexact, although in the latter passage and in the former treatise there is the confusion which he observes of ideal and material indivisibility (cf. Cherniss, *op. cit.*, pp. 124-8). *Physics* 187 A 1 ff., however, has nothing to do with Plato, as he mistakenly supposes it does, misled in this by Ross's note in his *Metaphysics*, I, p. 206 and unaware apparently that in his *Physics*, pp. 480-1 Ross recognized his error and corrected it (cf. Cherniss, *op. cit.*, p. 15). This being so, Mugler's long argument to prove that Plato could not have misunderstood the import of Zeno's paradoxes in the way implied in this passage (pp. 181-188) is entirely irrelevant. He would have done better to cite *Physics* 206 B 27-33 as evidence that Aristotle himself did not believe Plato to have set a limit to the divisibility of a line in space (cf. Cherniss, *op. cit.*, pp. 128-9).

tion can have no plausibility unless Mugler is right in his interpretation of the nature of Theodorus' method and of its historical relation to Plato's thought. Mugler (pp. 191-203) takes as an established certainty Zeuthen's conjecture that the demonstration alluded to in Plato's *Theætetus* 147 D 3-6 was not an extension of the traditional apagogic proof of the irrationality of $\sqrt{2}$ ⁴⁰ but a new geometrical demonstration discovered by Theodorus himself; it would have depended on the form of the periodic continued fraction, and the construction itself according to Mugler must have corresponded at least in spirit to that suggested by Heath (*A History of Greek Mathematics*, I, pp. 207-8) which turns upon the recurrence of similar figures of infinitely decreasing magnitude.

The sole evidence for Theodorus' demonstration is the passage of the *Theætetus*, and that reveals only that he began with $\sqrt{3}$ and selecting one surd after another up to $\sqrt{17}$ there somehow stopped. This tells nothing of the method that he used;⁴¹ but Mugler adopts Zeuthen's reasons for denying that it could have been an extension of the traditional apagogic proof: 1) this would not have been original enough to warrant Plato's notice of it as a new discovery; and 2) it would not have had to be applied separately to each surd up to $\sqrt{17}$, since its general applicability would become clear before that point is reached, while at the same time it involves no good reason for stopping at $\sqrt{17}$. The second argument was adequately answered by von Fritz in 1934 (*R.E.*, Zweite Reihe V, 2, cols. 1819-1824); and in 1938 quite independently G. H. Hardy and E. M. Wright (*An Introduction to the Theory of Numbers*, pp. 41-3) proved that the application of the

⁴⁰ Cf. Aristotle, *Anal. Prior.* 41 A 25-27 and 50 A 35-38 and Heath, *Mathematics in Aristotle*, pp. 22-3; the demonstration itself is preserved in Euclid, *Element.* X, Appendix, no. 27 (III, p. 408 [Heiberg]).

⁴¹ Mugler insists (pp. 196 and 203) that *ἐγγραφὴ* and *μήκει οὐ σύμμετροι* in *Theætetus* 147 D show that Theodorus must have used a "geometrical" as distinguished from the apagogic method. That *ἐγγραφὴ* *τε* *περί*, the phrase here used, has no such implication was proved by Heath (*A History of Greek Mathematics*, I, p. 203, n. 2); and the apagogic proof preserved in Euclid, X, App. 27 (see note 40 *supra*) itself uses the phrase *ἀσύμμετρος . . . μήκει* (cf. von Fritz, *Annals of Mathematics*, XLVI [1945], p. 256).

apagogic method to the surds $\sqrt{3} \dots \sqrt{17}$ without assumption of a general theorem would in fact satisfy all of Zeuthen's criteria for the nature of Theodorus' procedure. There is then good reason to believe that Theodorus did not use the "geometrical method" which Mugler ascribes to him; and, if he did not, there is no basis at all for any of Mugler's hypotheses (pp. 216-239) concerning the attempt of Theætetus, inspired by Plato, to reconcile Theodorus' "Heraclitean" conception of the irrational with the Pythagorean conception which Mugler calls "Parmenidean." Plato's hope to find in such a reconciliation a "mathematical demonstration of the Platonic theory of Becoming as a projection of Being," his disappointment at Theætetus' failure to achieve this result in adequately rigorous fashion, and his own anticipation of the ultimate solution by the mythical representation of the relation between time and eternity in the *Timæus*.

Moreover, whatever demonstration Theodorus used, there is not the slightest evidence to indicate that it was his own invention.⁴² Mugler says that Plato refers to the discovery of Theodorus with "profound philosophical astonishment" and that it was a revelation to Plato of a new aspect of the irrational very different from that in which he had hitherto regarded it (pp. xx-xxv, 195, 203, 239). Yet far from any expression of astonishment Plato does not put into the mouth of Socrates a single word of comment on the demonstration which Theætetus says Theodorus gave, and there is nothing in the passage to suggest that Theodorus had done more than repeat to his pupils what was a standard mathematical demonstration.⁴³ Even if he did use an original method, however, neither

⁴² Zeuthen held that the apagogic method must have been extended to the demonstration of surds other than $\sqrt{2}$ before Theodorus, and this was an additional argument for assuming that he could not have used it. Mugler, on the other hand, asserts (pp. 193-4 and 231) that Theodorus' "great discovery," "the new conception of the irrational," put a check to all interest in the apagogic method, even though Plato's contemporaries "must have dreamed of the possibility of applying the Pythagorean procedure to other rectangular numbers."

⁴³ This was recognized by Heath, *A History of Greek Mathematics*, I, p. 205; cf. also von Fritz, *Annals of Mathematics*, XLVI (1945), pp. 243-4.

it nor its implications could have been new to Plato when he wrote the *Theætetus*. Theodorus is there represented as an old man in 399 B.C., and this agrees with Eudemus' statement (Proclus, *In Euclidem*, p. 66, 4-9 [Friedlein]) that he was a contemporary of Hippocrates of Chios in the generation before Plato. Even if one chooses to believe that Plato learned of Theodorus' mathematical achievements not in Athens but in Cyrene (cf. Diogenes Laertius, III, 6), he must have done so not later than the middle nineties, more than 25 years before he wrote the *Theætetus* (cf. von Fritz, *R.E.*, V, 2 1811), for he wrote the dialogue after the death of Theætetus in 369 and so at that time knew as well all that Theætetus was to accomplish.⁴⁴ It is unreasonable therefore to assume, as Mugler does (pp. 204-10), that doctrines and arguments in later dialogues reflect the influence of a hypothetical discovery of Theodorus that could not have affected Plato before he wrote the *Theætetus*; and the initial improbability of such an assumption is raised to certain impossibility by the evidence of the dialogues themselves. For example, Mugler says (p. 210) that Plato, when in *Republic* 597 C he used the "third man" argument, was either not aware that the reasoning was susceptible of indefinite prolongation or thought such prolongation unnecessary and that only after having seen how Theodorus (in the method which Mugler ascribes to him) employed infinite repetition of similar figures to complete an analogous argument did Plato in the *Parmenides* (i.e. 132

⁴⁴ It is not even impossible that at this time he already knew Eudoxus' fundamental contribution to the theory of irrationals as well (von Fritz, *Annals of Mathematics*, XLVI (1945), p. 264). Mugler himself maintains (pp. 242-5) that there is an allusion to Eudoxus' formulation in the *Parmenides*, a dialogue which cannot be much if any later than the *Theætetus*. Unfortunately in the passage of which he makes so much (*Parmenides* 140 C) οἷς δ' ἂν μὴ σύμμετρον, τῶν μὲν μικροτέρων, τῶν δὲ μεγίστων μέτρων ἔσται means only "<If the One is greater or less> than things with which it is not commensurable, it will consist of smaller measures in one case and greater in the other." Here incommensurables are treated as having the same number of different measures (cf. Proclus, *In Parmenidem*, 1206 [Cousin²]); and it seems that it is only misinterpretation to see in it a hypothesis "de l'inégalité par excès ou par défaut" that is analagous to Eudoxus' formulation as represented by Euclid, V, Def. 5.

A - B) prolong the "third man" argument beyond its finite limits. *Timæus* 31 A, in which the argument is used without express assertion of the infinity of the regress just as it is in the *Republic*, would alone invalidate Mugler's explanation; and he would himself have seen how utterly baseless it is if he had remembered that the argument from the infinity of the regress expressly stated is used in dialogues which are certainly earlier than the *Theætetus*, in the *Cratylus*, for example, (421 D - E) and even and especially in the *Lysis* (219 C).

The geometrical method of analysis, Plato's authorship of which Chapter V is chiefly devoted to establishing, could have been formulated, Mugler contends (pp. xxvii, 283, 292-3, 307-8, 322, 401), only after the relation of time to immobile eternity, which is set forth in the *Timæus*, had suggested the analogous conception of deductive demonstration as the discursive evolvment of intuited mathematical existence. The interpretation upon which this whole thesis rests, namely that in the *Timæus* time is represented as being an emanation or projection of eternity, has already been dealt with (pp. 408-410 *supra*); but, even if that interpretation of Plato's theory of time were correct, it is difficult to see what it could have to do with the method of analysis. This method consists in assuming as true the proposition to be proved or the problem propounded as solved and deducing from this a consequence and from that consequence another until a consequence is reached which is independently known to be true or false. In the latter case the proposition originally assumed is proved to be false or the problem insoluble; in the former, from the consequence known to be true the same sequence of consequences is deduced in reverse order until the original assumption is reached and so proved. Since both the first stage, the analysis proper, and the second, the so-called synthesis, are strictly deductive, each step in the analysis must be unconditionally convertible; and the point of departure is any proposition that one pleases to assume and not "an intuition of geometrical truth."⁴⁵

⁴⁵ Cf. Heath, *A History of Greek Mathematics*, II, pp. 400-401 and *Euclid: The Elements*, I, pp. 137-142; R. Robinson, *Mind*, XLV N.S. (1936), pp. 464-473.

One would suppose that Mugler accepts this orthodox interpretation of geometrical analysis, for he adopts (pp. 293-7) as "the oldest definition of the method" the addition to Euclid, XIII, 1-5⁴⁶ and recognizes "the reversibility of propositions" as an indispensable condition of its application (pp. 321-2).⁴⁷ Yet at the same time he insists (pp. 288-93, 310-11) that "the invention of the method is contained in germ" in *Republic* 510-511, that is that the upward movement which in 511 B is said to be peculiar to dialectic was later recognized by Plato as the specifically analytic moment of geometrical method also. So Plato was to invent the analytic method by extending to geometry the reversibility of the movement of dialectic as soon as he should come to see that geometrical truth is "anchored in the unconditioned" by the fact that the results of mathematical investigation exist in the world of ideas prior to the research of them. Now, this last Plato knew when he wrote the *Republic*, for he there says τοῦ δὲ ὅντος ἡ γεωμετρικὴ γνῶσις ἴστιν (527 B). Mugler repeats an old mistake when he asserts (p. 291) that what distinguishes the methods of the geometer and the dialectician in *Republic* 510-511 is not so much their procedure as their sphere of application. Plato

⁴⁶ Euclid, *Opera Omnia*, IV, pp. 364-6 (Heiberg); cf. Heath, *Euclid: The Elements*, III, pp. 442-3.

⁴⁷ He even asserts that this "reversibility of propositions" is expressed by the theory of time in the *Timæus* and that in the myth of the *Politicus* the divine pilot "in changing the development of the world into its reciprocal" is conceived as a geometer using the analytic method, descending and reascending in turn the series of propositions and the inverse of them (pp. 322-3). This contradicts his earlier assertion (p. 159) that "time remains in all of Plato's work irremediably monodromic"; it is contradicted as well by Plato's statement in *Laws* 934 A, οὐ γὰρ τὸ γεγονὸς ἀνέστηναι ἔσται ποτέ, the traditional Greek formula for the irreversibility of time (cf. *Protagoras* 324 B; Aristotle, *Eth. Nic.* 1139 B 8-11; Theognis, 583-4; Pindar, *Olympian* II, 15-17; etc.). Nothing in the *Timæus* suggests the reversibility of time; and in the myth of the *Politicus* the retrograde motion of the cosmos has nothing to do with a theory of time or mathematics. It is conceived as a reaction of the tension created by the motion which God imposes upon the cosmos and to which it bears the same relation as Necessity does to Intelligence in the *Timæus* (cf. *Politicus* 273 B); it is not an aspect of the divine pilot's activity but the result of his complete withdrawal (*Politicus* 270 A, 272 E, 273 C-D) and so could not have been meant to symbolize any intellectual activity.

says exactly the opposite (511 C - D); he insists that it is their methods which distinguish mathematics and dialectic and that the ascending movement of 511 B belongs to dialectic alone (533 B - 534 A).⁴⁸ There is no evidence to show that he ever changed his mind in this respect; but, even if he had done so, he could not have invented geometrical analysis by extending to geometry the dialectical ascent of the *Republic*, for that ascent, instead of proceeding by deduction through a series of inferred consequences from something assumed to a consequence already known to be true, moves from a given term or proposition to another which implies it and from this to a third which implies the second and so on until one is reached which implies the whole series and is not itself deducible from anything else.⁴⁹ Mugler only confounds confusion further when he likens "the subsumption of the species under the genus to the retrograde path of analysis" and "the passage from genus to species to the deductive process" (pp. 306-7 and 314), for geometrical analysis is a strictly deductive process in both directions but species cannot be inferred from genus, as Plato himself knew (cf. *Politicus* 263 A - B).

For all that, Mugler believes that the reversibility of propositions upon which the method of analysis depends was a discovery that impressed Plato and his school so profoundly that they regarded it as a general law of geometry and were scandalized by what appeared to them to be the one case which withstood all their efforts to make it conform to this law, namely the proposition concerning parallels expressed in Euclid, I, Propositions 27 and 28 (pp. 329-30). It is strange that Mugler, although he argues at length in this connection that the work of Menæchmus implies the recognition of the reversibility of propositions (pp. 324-29), says nothing about Proclus' assertion (*In Euclidem*, pp. 253, 16 - 254, 5) that Menæchmus, Amphinomus, and their associates recognized that not all mathematical propositions are convertible. He also fails to mention

⁴⁸ Cf. Shorey, *Plato's Republic* (L.C.L.), II, p. 206, n. a with references; R. Robinson, *Plato's Earlier Dialectic*, pp. 204-209.

⁴⁹ Cf. Robinson, *Plato's Earlier Dialectic*, pp. 172-3; Cherniss, *A.J.P.*, LXVIII (1947), pp. 140-5.

Aristotle's remark (*Anal. Post.* 78 A 10-13) that mathematical propositions differ from dialectical propositions in being more commonly convertible (*ἀντιστρέφει μᾶλλον*), a statement which implies at least that they are not all convertible. These two passages in the absence of evidence to the contrary indicate strongly that Plato and the Academic mathematicians did not assume that convertibility must be a universal law of geometry.⁵⁰

Had Mugler noticed *Anal. Post.* 78 A 5-13, he would not have supposed that in *Physics* 200 A 15-24 Aristotle meant to deny the reversibility of geometrical propositions generally and he could have spared his involved explanation of this presumed denial as a confusion of physical and geometrical relations (pp. 331-356).⁵¹ This passage of the *Analytics* alone, stating as it does that analysis in mathematics is easier than in other subjects because mathematical propositions are more commonly convertible,⁵² would also have saved him from the erroneous notion that Plato's disciples are silent about the method and that the first mention of it is made after Euclid's time and from the futile elaboration of dubious psychological theories to explain this supposed silence (pp. 311-320). The fact is that Aristotle refers to geometrical analysis not only once but several times.⁵³ The tone of these references implies that the method was well known and consciously used by mathematicians generally, and in no case does Aristotle con-

⁵⁰ Aristotle does refer to unnamed persons who maintained the validity of demonstration *δι' ἀλλήλων* (*Anal. Post.* 72 B 15 ff.); but this was a theory of knowledge in general and not a specifically mathematical doctrine, although it may possibly have been applied by its proponents to a demonstration of parallels also (cf. *Anal. Prior.* 64 B 39 - 65 A 9). I have pointed out elsewhere that this position could not have been taken by Plato, Speusippus, or Xenocrates but was probably that of certain followers of Xenocrates who had abandoned the theory of ideas altogether and therewith any objects for direct knowledge (*Aristotle's Criticism of Plato and the Academy*, I, pp. 66-8).

⁵¹ On *Physics* 200 A 15-24 cf. Ross, *Aristotle's Physics*, pp. 531-3 and Heath, *Mathematics in Aristotle*, p. 101.

⁵² Cf. Ross, *Aristotle's Prior and Posterior Analytics*, pp. 549-50.

⁵³ Besides *Anal. Post.* 78 A 6-13 cf. *Eth. Nic.* 1112 B 11-24 (on which cf. Heath, *Mathematics in Aristotle*, pp. 270-272) and *Soph. Elench.* 175 A 26-28.

nect it with any metaphysical doctrine at all or suggest that its formulation was the work of Plato.

The "tradition" of Plato's authorship of geometrical analysis which Mugler seeks to vindicate (pp. 283-287) consists of two passages: Diogenes Laërtius, III, 24 and Proclus, *In Euclidem*, p. 211, 18-23 (Friedlein). Proclus, however, clearly felt some reserve about saying that Plato transmitted the method to Laodamas, for he protected himself with the phrase, "as they say." Diogenes indicates that Favorinus was his source for the statement that Plato first explained the method to Laodamas. Neither one says unequivocally that Plato was the first to formulate the method; and the earlier author of the *Index Herculanensis* (Col. Y. 14 ff. [p. 17, Mekler]), whose testimony Mugler does not mention, speaks only of the rise of analysis in Plato's time without ascribing the method to Plato himself. Since Proclus in the passage just mentioned, after reporting the ascription of analysis to Plato, gives as the second method of "discovery" Plato's *diæresis*,⁵⁴ it has been suggested that he or his source confused the complementary procedures of geometrical analysis and synthesis with Plato's *συναγωγή* and its complementary method, *διαίρεσις*,⁵⁵ a confusion which is seen to have been easy and almost inevitable as soon as one observes that there were many different procedures called by the name "analysis" and that among these was the "upward path" in the *Symposium* (210 A - D, 211 C), which has nothing to do with geometrical analysis but which is a kind of *συναγωγή*.⁵⁶ What makes it highly probable that the "tradi-

⁵⁴ Proclus, *In Euclidem*, pp. 211, 23 - 212, 1. *διὰ τῆς τῶν ἄλλων ἀναιρέσεως τῆς τοῦ προκειμένου κατασκευῆς* here refers to the separating-off of the privative term in dichotomy and is not a reference to *τὰς ὑποθέσεις ἀναιρούσα* in *Republic* 533 C 8; failure to observe this was apparently responsible for Robinson's mistaken notion (*Plato's Earlier Dialectic*, p. 171) that "Proclus seems to have understood division as belonging to the upward path."

⁵⁵ Cf. Heath, *Euclid: The Elements*, I, p. 134, notes 1 and 2 and *Mathematics in Aristotle*, p. 272.

⁵⁶ Ammonius (*Anal. Prior.*, p. 5, 19-25) calls the upward path of the *Symposium* "analysis" and distinguishes it and the "analysis of philosophers" from geometrical analysis. So Albinus (*Didaskalikos*, V, 4 and 5 [p. 157, 9-37, Hermann]) distinguishes three kinds of analysis, of which

tion," late and uncertain at best, originated in such a confusion is the evidence that geometrical analysis as a recognized method was pre-Platonic. A special form of it, the apagogic method, was consciously employed before Plato began to write⁵⁷ and in Plato's early writings is used for non-mathematical demonstrations in a way which assumes general knowledge of its rules;⁵⁸ and in *Meno* 86 E Plato himself refers to the formulation of *διορισμοί*, which implies a conscious use of analysis, and says that it is a common procedure of geometers.⁵⁹

the first is the upward path in the *Symposium*, the third, called η ἐξ ὑποθέσεως ἀνάλυσις, is a résumé of *Phaedo* 101 D - E, and the second is a reduction of *Phaedrus* 245 C - E to a scheme which is apparently influenced by geometrical analysis (cf. lines 18-23). Proclus himself sometimes treats analysis as the opposite of diacresis (*In Parmenidem*, 982, 27-28 [Cousin²]), just as Ammonius does (*Anal. Prior.* p. 7, 35-36) and in this sense identifies it with *συναγωγή* (cf. also Iamblichus, *Protrepticus*, p. 23, 5-16 [Pistelli]). Aristotle's reference in *Eth. Nic.* 1095 A 32 - B 1 (οὐ γὰρ καὶ Πλάτων ἠπόρει τοῦτο καὶ ἐξήτει πότερον ἀπὸ τῶν ἀρχῶν η ἐπὶ τὰς ἀρχάς ἐστιν η ὁδός) might seem to have had to do with geometrical analysis (cf. Proclus, *In Euclidem*, p. 255, 12 ff. [Friedlein]: ... πᾶσαι αἱ μαθηματικαὶ πίστεις η ἀπὸ τῶν ἀρχῶν εἰσιν η ἐπὶ τὰς ἀρχάς κτλ.), but this remark too more probably was made in connection with *συναγωγή* and *διαίρεσις* (cf. Cherniss, *Aristotle's Criticism of Plato and the Academy*, I, p. 63, n. 51).

⁵⁷ Cf. Heath, *A History of Greek Mathematics*, I, pp. 168, 291, 372. Proclus, *In Euclidem*, p. 212, 1-4 (Friedlein), after analysis and diacresis gives reduction to the impossible as a third method but does not mention Plato in connection with it as he did with the preceding two. For the relation of "reduction" to analysis cf. Proclus, *In Euclidem*, pp. 255, 18 - 256, 8 (Friedlein).

⁵⁸ E.g. *Phaedo* 93 C - 95 A: n.b. τῶν οὖν θεμένων... (93 C 3) ... η καὶ καλῶς δοκεῖ οὕτω λέγεσθαι... εἰ ὁρθή η ὑπόθεσις...; (94 A 12 ff.) ... οὐκ ἄρα καλῶς ἔχει... οὕτε γὰρ ἐν... ἡμολογοῖμεν... αὐτοὶ ἡμῖν αὐτοῖς (94 E 8 ff.). Cf. also *Euthyphro* 9 D 8, 11 B 7, 11 C 4-5 with Burnet's notes.

⁵⁹ Cf. Heath, *A History of Greek Mathematics*, I, p. 303 and *Euclid: The Elements*, I, p. 142; and observe that the *Index Herculanensis* (Col. Y, 14 ff. [p. 17, Mekler]) connects the enunciation of *διορισμοί* with the rise of analysis. Plato does not use the word *διορισμός* in *Meno* 86 E; and it may be that the term in this sense was introduced by Leon, who according to Proclus (*In Euclidem*, pp. 66, 22 - 67, 1 [Friedlein]) *διορισμοὺς εὗρεῖν*, a statement usually taken to mean that Leon invented or discovered the method (which could not be true in the light of the *Meno*) but which may mean only that in his compilation of "the elements" he formulated many new *διορισμοί*.

Even if Plato was the first to formulate the method of geometrical analysis, however, there is no reason why he could not have done so at the time when he wrote the *Meno* as well as when he wrote the *Timæus*. The "tradition" itself if taken seriously would imply that he "transmitted the method to Laodamas" long before he wrote the *Timæus* or even the *Theætetus*, for Laodamas, if his geometrical discoveries were the result of analysis (Proclus, *In Euclidem*, p. 211, 22-23 [Friedlein]), was presumably using the method in his fifties at the latest and he must have been fifty years old in 380 B.C. at the very latest, since he was older than Neoclides, the teacher of Leon, and Leon was himself a little older than Eudoxus (Proclus, *In Euclidem*, pp. 66, 18-67, 2 [Friedlein]).⁶⁰ Mugler, without observing these chronological implications, maintains, however, that "the analytic method marks the term of the evolution of the Platonic theory of knowledge" (p. 309) and that the method could not be invented until "the evolution of Plato's ideas concerning knowledge in general had transferred to the highest plane of the geometrical *a priori*, under the form of an instantaneous vision of the relations which enter into the solution of a problem, that connection of the parts to which he assigns" in the *Meno* "a function still equivalent if not subordinate to the *a priori* representation of the elementary spatial properties" (p. 401). This evolution, he asserts, though it is revealed in the modifications of the theory of reminiscence in the *Phædo*, the *Phædrus*, and the *Republic*, is not completed until Plato has conceived the metaphysics of time in the *Timæus*. The doctrine of time in the *Timæus* aside, the interpretation of the *Meno* which this implies and with it the interpretation of Plato's early metaphysics and epistemology are demonstrably false. Mugler has adopted the theory of Klara

⁶⁰ Assuming that Proclus's "younger" and "a little younger" indicate a difference of only five years and that Neoclides was only twenty years older than his pupil, Laodamas would have been born about 430, if von Fritz's date of 400 for the birth of Eudoxus is right, and about 438 if Eudoxus was born in 408 as Heath and others maintain (cf. Michel, *De Pythagore à Euclide*, pp. 234-5). The order of names given by Proclus (*In Euclidem*, p. 66, 15-16) would imply that Laodamas was older than Archytas.

Buchmann that reminiscence in the *Meno* is not reminiscence of the ideas but is only the fragmentary memory of experience gained in an earlier incarnation, and he has made of the words ἐν μόνον in *Meno* 81 D 2 a metaphysical concept in a fashion similar to that in which he elevated the harmless πάντα ταύτῃ of Proclus to a profound metaphysical doctrine (pp. 301-3, 309-10, 364-374). Buchmann's misreading of the *Meno* was exposed long ago;⁶¹ here it is sufficient to observe the conclusions drawn from the interrogation of Meno's slave (86 A - B): he must have had the knowledge now recalled "when he was not a human being", his soul must therefore have known it throughout all time (τὸν ἀεὶ χρόνον), and the truth of realities is forever in our souls.⁶² This passage, which Mugler fails to mention, is by itself conclusive proof that in the *Meno* reminiscence is not of earlier bodily experience but of the ideas exactly as it is in the *Phædo*,⁶³ the *Phædrus*, and the *Timæus* and that from the *Meno* to the *Timæus* there was no such evolution of Plato's theory of knowledge as that upon which

⁶¹ Cf. *A.J.P.*, LVIII (1937), pp. 497-500. Like Buchmann Mugler fails to see the irony of *θεῖα μοῖρα* in the *Meno* and the fact that it involves an *aporia* which Socrates expressly emphasizes at the end; and *Politicus* 278 C - D alone is enough to show that what is said of ἀληθεῖς δόξαι in the *Meno* does not distinguish Plato's doctrine at that time from his doctrine in the latest dialogues. The ἐν μόνον in *Meno* 81 D 2, of which Mugler makes so much, is the statement of a minimal case ("nothing prevents a man who has recalled only one thing from rediscovering all the rest by himself"); it is an answer to Meno's lazy desperation not a dogmatic statement of the fragmentation of reminiscence.

⁶² ἡ ἀλήθεια τῶν ὄντων (86 B 1) can refer only to knowledge of the ideas (cf. *Phædrus* 247 C 8, 248 B 6, 249 B 5-6).

⁶³ The reference to the *Meno* in *Phædo* 72 E - 73 B shows that Plato never conceived that anyone could suppose the doctrine of reminiscence in the latter dialogue to be "new" and different from that in the former. In *Meno* 81 D 4-5 he formally declares that *all* learning is ἀνάμνησις. Consequently learning in a previous incarnation must have been ἀνάμνησις too; and that Plato would have been aware of this and could not have fallen into the infinite regress implied by Mugler's interpretation (p. 369) follows from the fact that in an earlier dialogue (*Lysis* 219 C - D) he had already concluded from the danger of such a regress the necessity of assuming an ultimate term of which the others that have the same name are merely εἰδωλα, i.e. he was already using the argument from regress to establish the necessity of the doctrine of ideas.

Mugler bases his "history" of the development of Plato's mathematical philosophy.

One eloquent example will show the irresponsibility of this "historical reconstruction." The expression used at *Republic* 510 D in the description of the deductive procedure of geometers, *τελευτῶσιν . . . ἐπὶ τοῦτο οὐδ' ἂν ἐπὶ σκέψιν ὁρμήσωσι*, is according to Mugler (p. 292) an anticipation of the relation that Plato was later to establish between geometry and dialectic and of the importance which intuition was to play in that connection, for *ὁρμήσωσι* calls up the figure of the hunt, a figure which Speusippus and Proclus after him in full knowledge of the Platonic theory used to characterize the research for geometrical truth, and "one sets out to hunt only that which one already knows." This conception, he says, just glimpsed here in the *Republic* matures in the metaphysical dialogues but will become fertile for geometrical method only with the theories of time and space in the *Timæus*. If it is valid, however, to draw such inferences from the expression in *Republic* 510 D and the figure of the hunt used by Speusippus and Proclus, then what Mugler calls Plato's final conception of the relation of geometry and dialectic and the ultimate stage of his theory of knowledge, though only "anticipated" in the *Republic*, were fully developed when Plato wrote the *Euthydemus*, a dialogue earlier than the *Republic* and roughly contemporary with the *Meno*.⁶⁴ In *Euthydemus* 290 B - C, a passage left unnoticed by Mugler, geometers, astronomers, and arithmeticians are expressly called hunters, "for they are not engaged in creating figures but in discovering those that really exist — and inasmuch as they do not know what use to make of them themselves but only how to hunt them, they — at least those among them who are not entirely foolish — hand over their discoveries to the dialecticians to employ." It is very strange to reconstruct the development of Plato's mathematical philosophy without even mentioning this passage which, written early in his career, expresses succinctly and

⁶⁴ For the relative date of the *Euthydemus* cf. C. Ritter, *Platon*, I, p. 273; Friedländer, *Platon*, II, p. 179, n. 1; Méridier, *Euthydème*, Notice, pp. 140-2; Robin, *Platon*, p. 41.

vividly so much that reappears unchanged in his latest remarks on the subject.

Even the attitude towards "geometrical construction" revealed in this passage was never altered by Plato — so far as there is any evidence to show. Mugler maintains, to be sure, that in the *Republic* Plato banished "problems" and operations of construction from geometry, that this had been his attitude when he wrote the *Meno* and the *Phædo*, but that in the later dialogues and particularly in the *Timæus* the rehabilitation of motion and becoming removed from suspicion the procedure of construction and made possible its "restoration to honor" (pp. 269-77, 293). Now, this supposed "rehabilitation of becoming" in the later dialogues is more than dubious;⁶⁵ but it is in any case irrelevant to the question of Plato's attitude towards problems and construction, for even in the earlier dialogues he did not seek to banish this method from geometry. Mugler's belief that he did derives from a misunderstanding of *Republic* 527 A - B, where it is said that geometers speak ludicrously of "squaring," "applying," "adding" and the like as if they were engaged in action and were carrying on their discussion with a view to action.⁶⁶ This way of talking is ludicrous, Plato says, because it is in contradiction to the purpose of geometry which is knowledge and the object of

⁶⁵ That the reality of motion is not "new" even to the *Phædrus* I have shown in *Aristotle's Criticism of Plato and the Academy*, I, pp. 433-7, p. 451, and n. 396. On the other hand, the doctrine that accurate truth about the world of becoming is impossible was never stated more emphatically in the earlier dialogues than it is in *Timæus* 51 E - 52 A and in *Philebus* 59 A - B.

⁶⁶ Mugler, pp. 265, 269-70, 272, 273; cf. the similar misinterpretation of this passage by E. Hoffmann in Zeller, *Phil. Griech.*, II, 1 (1922), p. 1097 and Shorey's correction of this mistake in his *Plato's Republic* (L.C.L.), II, p. 171, n. f. Mugler (p. 270) goes so far astray as to suppose that when Aristotle in *Physics* 200 A 24 says that in mathematics there are no *πράξεις* he is maintaining a Platonic thesis of an earlier period later abandoned by Plato himself; but Aristotle of course by this means not that constructions have no place in geometry but simply that the purpose of mathematical reasoning is not production or activity but knowledge (cf. *Eth. Nic.* 1103 B 26-31; *Eth. Eud.* 1214 A 8-12). For this distinction cf. *Charmides* 165 D - 166 A and Shorey, *Class. Phil.*, XXIV (1929), p. 312.

which is therefore eternally existent. By this, however, he neither says nor means that either these operations or even these terms should or could be banished from geometry. The contradiction between the language and the purpose of the science he represents as something that all geometers will admit; and, when he calls their language ludicrous, he says in the same breath that it is unavoidable.⁶⁷ Far from pronouncing an interdiction upon problems of construction, he recommends in *Republic* 530 B that astronomy be pursued as geometry is by the use of problems and later (531 B-C) criticizes both astronomers and students of harmony for not using this method. That Socrates in his interrogation with Meno's slave does not employ geometrical construction in the classical sense (Mugler, p. 274) is irrelevant; the example given in *Meno* 86 E ff., ἐς τόνδε τὸν κύκλον τόδε τὸ χωρίον τρίγωνον ἐνταθῆναι is a "problem" as Proclus defines the term (*In Euclidem*, p. 79, 20 ff. [Friedlein]), and Socrates certainly gives no indication that he disapproves of the geometers' use of such procedure. *Phædo* 101 C, which Mugler interprets (p. 275) as a prefiguring of the supposed interdiction in the *Republic*, has nothing to do with geometrical procedure at all but refers to the doctrine of ideal numbers,⁶⁸ which Mugler does not even mention, although it is certainly one of the most important parts of Plato's mathematical philosophy. Even the story which Plutarch repeats (*Marcellus* XIV, 5-6; *Quæst. Conviv.* 718 E-F) says not that Plato rejected problems or operations of construction but that he objected to the use of mechanical contrivances in the solution of geometrical problems. Just so the *Euthydemus* says not that the geometer should refrain from constructing figures but that in doing so his purpose is not to create the figures that he constructs but to hunt down those that already and truly exist.

⁶⁷ λέγουσι μὲν πον μάλα γελοῖως τε καὶ ἀναγκαίως. For the meaning of ἀναγκαίως, which is almost universally mistranslated, cf. Shorey, *Plato's Republic* (L.C.L.), II, p. 170, n. b and to his references add *Laws* 687 C 10-11, 872 E, *Timæus* Locrus 104 D.

⁶⁸ Cf. Cherniss, *Aristotle's Criticism of Plato and the Academy*, I, pp. 517 ff. and *The Riddle of the Early Academy*, pp. 34 ff.

This view of the nature of mathematical reasoning and its object, the doctrine that the meaning of the entities which the mathematician discovers is not his province but that of the dialectician, and the concomitant distinction between mathematician and dialectician remained firm and unaltered convictions of Plato's at least from the period during which he wrote the *Euthydemus* to that of the last of his writings, the *Philebus*, and the *Laws*. It is as likely as any conjecture of the kind can be that, whatever encouragement of suggestion and criticism he may have given to the mathematical specialists whom he knew and despite his interest in their reasoning and his enthusiasm for the propædæutic value of their discipline, he would have insisted that the sphere of his own activity was dialectic and not mathematics and would have repudiated such attempts as that of Dr. Mugler to obliterate the distinction between the two or to reverse the order of importance which he had assigned them even for the generous purpose of magnifying his reputation in modern eyes by pretending that he was not merely a philosopher but also and primarily a productive mathematician.

THE SOURCES OF EVIL ACCORDING TO PLATO

THE point of this paper is the plural in its title. My reason for making it is the persistent failure of scholars to understand how Plato, if he had a consistent theory of evil, could speak of the evil in this world as derivative from more than a single source. Some of them, consequently, stoutly maintain that he must have believed all evil to have one source only, though they disagree in identifying that source, while others deny that he ever achieved any coherent theory of evil at all.¹

This is not so strange as a similar lack of con-

¹ Among those who maintain that the source of all evil according to Plato is matter or corporeality are Vlastos (1939: 80-82), Festugière (1947: 36-42), and Pétrement (1947: 45-47 and 72-73); among those who contend that it is soul or an irrational element in soul are Wilamowitz-Moellendorf (1919: 320-321), Chilcott (1923: 29-31), Taylor (1928: 117; 1937: 455, n. 2, and 492), Cornford (1937: 209-210), and Morrow (1950: 163). For earlier exponents of the latter position, against which Hoffleit (1937) argued, cf. Zeller (1922: 765, n. 5), who for his part (1922: 973, n. 3 and 4) contends that in all dialogues before the *Laws* the source of all evil is matter but in the *Laws* is an evil world-soul and that this was a natural step in the development of Plato's theory. Greene (1944: 301) thinks it idle to seek in Plato for a single solution. According to him there are two solutions equally Platonic: "Plato identifies the source of moral evil at first chiefly with body or matter and then more and more with soul. . . . The unresolved residuum, or evil, in the world, as Plato sees it, may confidently be assigned to matter or 'Necessity,' once and once only . . . conceived as endowed with life (soul)" (*op. cit.*, 311). Sesemann (1912: 180) had already asserted that there are "zwei Grundauffassungen des Bösen, die in dem platonischen System unveröhnt einander gegenüber stehen." Meldrum (1950: 65) holds that "the discrepancies in what Plato says about evil . . . call attention to something obscure, perhaps incoherent, in his metaphysical thinking"; he argues (70) that "Plato's view of evil varies as ποῖς δημιουργικός or ψυχὴ ἀρχὴ κινήσεως predominates," and he concludes (74) that "there is no entity that we can call 'Plato's theology.'" Palas (1941: 52) goes even further and asserts that "the problem of evil never seriously concerned Plato at all," an assertion which Solmsen unwittingly contradicts (1942: 142) with the assurance that "the problem of evil . . . had an organic and important place in his thought." For the interpretations of Plato's theory of evil given by Aristotle, Theophrastus, and Eudemus and for the theories of Speusippus and Xenocrates cf. Cherniss, 1944: 95-97, n. 62, and 268-269, n. 176.

sensus concerning evidence would be in most fields of investigation. Plato did not collect all that he might have to say about various subjects and set down these doctrinal opinions in systematic arrangement under the rubrics that later became the conventional problems of philosophy. The form in which he chose to express his thought is the dialogue, and he always confined his treatment of any problem to such aspects of it as seemed to him to be pertinent to the particular context of the philosophical discussion which he was actually composing.² Because of this the interpretation of Plato is involved in peculiar difficulties, and there is a great temptation to treat the several dialogues as records of disconnected phases in the flux or—more courteously—in the development of Plato's thought.³ One should, of course, beware of reading into the text what is not implied by it according to Plato's own standards; but one must be equally wary of neglecting the illumination that the different dialogues cast upon one another. Synoptic understanding is no less necessary in this modest field of investigation than Plato said it is to the philosopher in his larger sphere. Such a synoptic reading of the dialogues reveals, I believe, behind all the apparently diverse statements concerning the sources of evil a theory more complicated than any of the current interpretations has recognized but perfectly coherent in all its parts and consistent with Plato's fundamental theory of reality.

According to that theory the phenomenal world is a spatial reflection of the ideas, which alone are

² The body of the *Timaeus* is not a dialogue; but dialogic characteristics are not entirely absent even from this exposition, just as they are present in the longer expository sections of the *Laws* (cf. Schaerer, 1938: 153-156). Moreover, the form of the *Timaeus* alone determines the treatment of important doctrinal factors there, e.g. the self-motion of soul (cf. Cherniss, 1944: 428-431).

³ Stenzel (1931: 108, n. 1; 125; 133), who himself sought to trace Plato's development, issued a warning against the dangers of this temptation, a temptation to which British scholars have recently manifested a growing susceptibility.

perfectly real entities.⁴ Since no copy or reflection can be identical with its model or original, all phenomena must fall short of the reality of the ideas, and all must therefore be something less than perfect.⁵ So all the phenomenal world is always involved in what may be called "negative evil," since it is a derogation of reality, the degree of deviation from the original which at the very least is implied in the existence of a copy or reflection.⁶ It is evil in this sense that, as the contrary of good, is in the *Theaetetus* said to be ineradicable from this mortal world but absent from the divine;⁷ and the same notion is implied by the statement in the *Philebus* that whatever fair things there are in this world are the result of a

⁴ *Timaeus* 52 A-C, *Politicus* 285 D9-286 B2 (cf. *Phaedrus* 250 A-C), *Phaedo* 74 D-75 D.

⁵ Cf. *Cratylus* 432 C-D, *Sophist* 240 A-B (cf. *Republic* 597 A 4-7).

⁶ Palas (1941: 50) says: "Letzten Endes aber beruht der axiologische Grundcharakter des empirischen Kosmos darin, dass der Kosmos das Abbild des Urbildes ist." This statement, which save for the first two words is literally correct, erroneously implies, however, that Plato meant to explain all evil in this way. It is Sesemann's similar neglect of Plato's distinctions that accounts for his formulation (1912: 174 and 176): the notion of the spatial-material principle as the source of all imperfection makes evil a positive force, whereas the notion of soul (through its ignorance) as the cause precludes all positive reality of evil, making it mere negation.

⁷ *Theaetetus* 176 A 5-8. This statement concerning the contrariety of good and evil was expanded into a theodicy by the Stoics (Aulus Gellius, VII, i, 2-3 [S.V.F. II, frag. 1169], where Chrysippus also uses *Phaedo* 60 B-C); and Plotinus (III, ii, 5, 25-32) employs this passage as an appendix to a series of Stoical arguments, though he interprets it in a non-Stoical fashion. Sesemann (1912: 183) makes the passage say that "die Erhaltung des Guten fordert daher auch notwendig die Erhaltung des Bösen," supposes this to mean that evil is not only necessary but morally justified, and reads this conception into the *Lysis*, the *Timaeus*, and the *Laws*. But the ἀνάγκη of *Timaeus* 48 A and the account of *Laws* 904 B-D refer, as will be shown, to quite different matters; and *Lysis* 220 D-221 D is not parallel either, for its subject is the reason for man's desire of the good and it rejects the suggestion that the abolition of evil must involve the abolition of what is not evil (221 B-1). As for *Theaetetus* 176 A 5-8, the evils there in question, since they are said not to exist in the divine world and to be such as the soul can get free of, must be of a kind that is peculiar to phenomena as such, something implied in the nature of phenomenal existence and not in the nature of good itself. Nor is the good to which this evil is here said to be contrary the ideal or absolute good; it is the derivative good in the phenomenal world itself, as is shown by the remark of Theodorus (176 A 3-4) which motivates Socrates' reply. The "expansion" of the passage by the Stoics and by Sesemann is therefore unwarranted, at least as an interpretation of Plato's meaning. (On this "expansion" and the Stoic paradox cf. also More [1921: 235]).

combination of the determinate and the indeterminate,⁸ for indeterminateness characterizes phenomena as falling short of the complete reality of the ideas.⁹

Despite this negative evil, this deficiency which phenomenal existence as such implies, and despite the admission that for man at least there is more of evil in this world than good,¹⁰ Plato in his myth of the creation declares that the Demiurge fashioned this universe because he was good and desired all things to be as nearly like himself in this respect as possible.¹¹ This myth expresses in the synthetic form of a cosmogony what is in fact an analysis of the constitutive factors of the universe which for Plato has neither beginning nor end,¹² and in the myth the Demiurge symbolizes the factor of rational causation in this universe. The Demiurge or god or gods or the class of causes so symbolized or represented¹³ is wholly good and is responsible only for good;¹⁴ and the cosmos fashioned by this cause is repeatedly declared to be good—good, that is, as a whole and as good as is possible considering the conditions on which it can exist at all.¹⁵ Primary among these conditions is the nature of reflection or copy already mentioned. The Demiurge does not create either the ideas or space. Both of these are uncaused and ultimate factors;¹⁶ and the immediate consequence of their existence, quite apart from any demiurgic causation, is the reflection of the immutable, non-spatial ideas in the unchanging and homogeneous mirror of space.¹⁷ It is these spatial reflections upon which the demiurgic action

⁸ *Philebus* 26 B 1-3 and 25 E-26 B generally.

⁹ Cf. *Philebus* 16 D7-E2 and *Amer. Jour. Philol.* 68: 233-234, 1947 with references *ibid.*, 234, n. 71.

¹⁰ *Republic* 379 C 4-5, *Laws* 906 A2-B3 (cf. O. Apelt, *Platons Gesetze* 2: 541, n. 82).

¹¹ *Timaeus* 29 D7-E3, 30 A 1-2.

¹² Cf. Cherniss, 1944: 421-431.

¹³ Cf. Cherniss, 1944: 607-608 for the nature of the Demiurge in the *Timaeus*, the nature of "cause" in the *Philebus*, and Plato's use of "god" in the singular and plural.

¹⁴ *Timaeus* 29 E1, 30 A6-7; *Republic* 379 B-C (cf. 617 E5 and *Timaeus* 42 D3-4); *Laws* 900 D2-3 and 900 E6-8. Cf. the class of causes *δοῦναι μετὰ τοῦ καλοῦ καὶ ἀγαθοῦ δημιουργοῖ* (*Timaeus* 46 E4).

¹⁵ The last sentence of the *Timaeus* (92 C4-9) solemnly declares the goodness of the phenomenal universe. That its goodness is limited, however, by the very conditions of its existence is indicated by the restrictive qualifications in such passages as *Timaeus* 29 A5, 30 B5-6, 46 C8, 48 A2-5, 53 B5-6. That in many cases its partial aspects are good only by reference to the goodness of the whole is most clearly expressed in *Laws* 903 B4-D3.

¹⁶ *Timaeus* 52 A1-4, 52 A8-B2 (cf. 51 A4-B2).

¹⁷ Cf. Cherniss, 1944: 453-454.

is brought to bear, not to eliminate their character as reflections (for that is essential to their existence) and so not to annul the negative evil implicated in that character but by delimiting and organizing them to bring them nearer to conformity with the ideas, which are at once their originals and the models of this demiurgic activity.

These reflections, however, as consequences of the mere existence of space and the ideas, though they would be confused and indeterminate,¹⁸ would still be static; and what is reduced to order by the Demiurge is said to have been not at rest but in erratic motion.¹⁹ This precosmical chaotic motion of the myth is an isolated factor of the actually existing universe, random disorder which is only for the most part made subservient to the purposes of rational causation, for the phenomenal cosmos is the result of a combination of intelligent causation and "Necessity" or the "errant cause" that limits its effectiveness.²⁰ This erratic or random motion is, then, a source of evil different from the mere derogation of reality inherent in the nature of spatial reflection. The confusion of the errant cause with space to produce a Platonic matter which of its own nature is in disorderly motion is the chief reason why many interpreters have contended that in the *Timaeus* at least matter is the source of all evil.²¹ According to Plato, how-

ever, nothing spatial or corporeal can be the cause of its own motion; and, since every such motion requires as cause a motion beyond itself, the ultimate cause of all corporeal motion must be an incorporeal self-motion, which he identifies as soul.²² This is primary causation, whereas the motions of corporeal entities induced by other corporeal entities in motion and themselves inducing motion in still others can be only secondary causes.²³ Erratic or random motion must therefore, as motion, have its primary source in soul just as much as

the Demiurge organized it into a cosmos. All interpretations such as the foregoing lean heavily upon this passage and upon the description of precosmical chaos in *Timaeus* 52 D-53 A, which they presume to be ultimate and unanalysable. What is referred to in this passage of the *Politicus* is undoubtedly the same as the errant cause of the *Timaeus* in operation; but the question is precisely whether erratic motion is an essential and irreducible characteristic of "corporeality" or is the resultant of "corporeality" and some other factor. In this connection it should be remembered, first, that "corporeality" itself is not for Plato an ultimate, unanalysable datum (cf. *Timaeus* 31 B) and, second, that in the *Politicus* not only are the precosmical disorder and the retrograde motion mythical, i.e. factors of the actual phenomenal world isolated for the purpose of description, but the retrograde motion during the course of which this disorder finally comes again to predominance is represented as a reaction of the tension created by the motion which the Demiurge imposes upon the universe (*Politicus* 270 A; see further note 44 *infra*).

A curious aspect of the interpretations that represent Platonic matter as thus self-moving is that they frequently represent it at the same time as "non-being" and, since it is the source of evil, represent evil therefore as somehow non-existent. So Festugière (1949: 129) says of what he calls Platonic *Χώρα*-matter: "Sous un premier aspect, elle apparaît comme une transposition physique de la notion dialectique de l'Autre: elle est un non-être relatif. . . . Sous un second aspect, étant mue spontanément de mouvements désordonnés . . . la *χώρα* matière apparaît comme un principe autonome de désordre. . . ." Cf. Greene's statements (1944: 305): "Ananke . . . is the negative substratum of phenomena" and (*ibid.*: 297) ". . . evil is somehow mere nonexistence (*μη ὄν*), or better, is otherness." In fact, Plato never suggests that evil is non-existence or "otherness"; and, far from calling space *μη ὄν* or *θάνατον* he says *ταῦτόν αὐτὸν καὶ προσρητὸν* (*Timaeus* 50 B 6-7) and expressly refers to it as *ὄν καὶ* (*Timaeus* 52 A 8). The notion that space is a "transposition" or manifestation of the idea of otherness or non-being is entirely without foundation. The existence of space is for Plato a necessary inference from the analysis of phenomenal process (*Timaeus* 49 A-51 B), and in characterizing it as *μετ' ἀναισθήσεως ἀπὸν λογισμῷ τιμὴ νόθῳ, μόγις πιστὸν* (*Timaeus* 52 B 2) he shows that he did not consider it to be a dialectical inference from the nature of the ideas themselves. On Aristotle, *Physics* 192 A 6-8, which is Zeller's "evidence" (1922: 726, n. 3 and 733) for asserting that Platonic matter is non-being, cf. Cherniss, 1944: 92-96.

²² *Phaedrus* 245 C5-246 A2, *Laws* 894 B8-896 C4.

²³ *Laws* 895 B, 897 A; *Timaeus* 46 D5-E2; *Phaedrus* 245 C5-9.

¹⁸ Since the spatial mirror is homogeneous and the ideas themselves are non-spatial, the reflections in space would not be locally distinct; and the Demiurge is conceived as delimiting them by geometrical configurations, thus representing spatially the "logical" distinctness of their non-spatial originals; cf. *Timaeus* 53 A8-B5.

¹⁹ *Timaeus* 30 A3-6.

²⁰ *Timaeus* 46 E3-6, 47E-48A, 56 C3-7, 68E-69A; cf. Cherniss, 1944: 421-423 and 444.

²¹ Vlastos (1939: 80-81): "Chaos . . . must, therefore, and for purely mechanical reasons, be in constant motion." Festugière (1946: 36, 40, 41) and most concisely in his later book (1949: 127): "la matière n'est pas seulement limitée à l'Ordre, elle se trouve être par elle-même cause positive de désordre en ce qu'elle est mue, spontanément, de mouvements chaotiques." So Meldrum (1950: 66): "Noûs struggles to subdue ἀνάγκη. The Demiurge does his best with these materials and succeeds on the whole, but to some extent they resist, and the evil of the world is simply this element of disorder that survives from chaos. So matter, τὸ σωματωδές, is the κακοποιόν." In a note on this statement Meldrum adds (*loc. cit.*, n. 10): "'Necessity' is a name for τὸ σωματωδές, more precisely for the causal powers of matter, for the αἰτίαι, δεῖσι μοιθεῖσαι φρονήσουσι τὸ τυχόν ἀτακτὸν ἐκαστοῦ ἐξεργάζονται (*Timaeus* 46 E)." The term, τὸ σωματωδές in this context is apparently a reminiscence of the myth of the *Politicus* (273 B4-C2), where in the absence of the Demiurge the increasing deviation of the cosmos from his instruction is charged to τὸ σωματωδές τῆς συγκρέσεως and it is said that *ὅσα χαλεπὰ καὶ ἄδικα ἐν σφαιρῇ γίγνεται* derive from the great disorder that prevailed before

orderly motion has; to suppose that Plato in the *Timaeus* meant to make it a characteristic of corporeality *per se* is to assume that he there temporarily forgot or abandoned a fundamental tenet which he not only emphatically maintained both before and afterwards but which in fact is implied in the *Timaeus* itself.²⁴

Mindful of this and of Plato's explicit statements that soul is the principle of all motion and change in the phenomenal world,²⁵ some interpreters have concluded that the cause of the random, disorderly motions must be an irrational element in the soul that according to the *Timaeus* pervades the universe and moves the heavenly bodies,²⁶ while others have ascribed this disorder to an evil world-soul opposed to this world-soul of the *Timaeus* and posited, they believe, in the *Laws*.²⁷ The text of the *Timaeus*, however, excludes the possibility of an irrational element in the world-soul there described,²⁸ while the existence of an

evil world-soul as its adversary and the cause of the chaotic motions is not even mentioned in the *Timaeus* and is certainly not envisaged in the text of the *Laws* to which its proponents appeal.²⁹

Nevertheless, Plato does categorically declare that soul is the cause of all good and evil in the phenomenal world.³⁰ It is recognized that this follows from the doctrine that soul is the cause of all motion in this world; but the contention that this is irreconcilable with the account of random and chaotic motion in the *Timaeus* as well as the attempts to reconcile the two by ascribing the chaotic motions to an irrational element in the world-soul or to an evil world-soul opposed to it both overlook the fact that these random, disorderly motions are expressly classified as secondary causes, which as secondary are to be regarded as somehow dependent upon the primary causality of psychical motion.³¹

It must first be observed, however, that some evil has its *immediate* source in such psychical motion, in other words that there are souls in the universe which produce evil effects because they are themselves evil.³² Soul is good or bad ac-

²⁴ In the *Timaeus* the definition of soul is omitted as is all reference to self-motion in the *psychogonia* because to dwell upon it would have deprived the creation-myth of all literary plausibility (cf. Cherniss, 1944: 428-431, 455). Despite this, however, 37 B5 is meant to be a reminder of the doctrine, for there soul is referred to (*pace* Cornford, 1937: 95, n. 2) by the phrase, "that which is moved by itself," as 37 C 3-5 plainly shows. Moreover, *Timaeus* 46 D-E in making all corporeal motion secondary to the primary causation of soul assumes the doctrine that soul is self-motion, as is clear from *Phaedrus* 245 C5-9 and *Laws* 895 B, 897 A, where this classification of primary and secondary causation is presented as a consequence of that doctrine; it is consequently impossible to eliminate this passage, as Owen (1953: 95) tries to do by suggesting that it "may well contain only the raw material" of the doctrine of soul as self-motion. This doctrine, moreover, whatever the relative chronology of the *Phaedrus* and the *Timaeus* may be, was certainly not a "new development" of Plato's thought when he wrote the *Phaedrus* (cf. Cherniss, 1944: 433-442); it is involved in the "final demonstration" of the *Phaedo*, and the concept of self-motion itself is at least as early as the *Charmides* (168 E-169 A), a dialogue in which it is explicitly asserted that soul is the source of all good and evil for the body (156 E).

²⁵ *Phaedrus* 245 C9, 246 B6-7 (cf. *Laws* 896 D10-E2); *Laws* 892 A5-7, 896 A5-B1.

²⁶ Cf. Robin, 1935: 228-229; Cornford, 1937: 176-177, 205-206, 209-210; Morrow, 1950: 162-163.

²⁷ Cf. Wilamowitz-Moellendorf, 1919: 320-321. Dodds (1947: 21), though rejecting the notion that there is in the *Laws* an evil soul in the sense of "the Devil," holds that evil soul there and Necessity or the Errant Cause in the *Timaeus* are "symbols" of the same thing, "irrationality, the element both in man and in the *κόσμος* which is incompletely mastered by a rational will."

²⁸ The motion of the world-soul as a whole is called "ceaseless and intelligent life" (*Timaeus* 36 E). The Circle of the Different, which is sometimes taken to symbolize irrational motions in the world-soul (e.g. by Cornford, 1937: 76 and 208) has a constitution identical with that of

the Circle of the Same (*Timaeus* 35 B 2 ff.); and, since the intermediate Being, Sameness, and Difference that are blended to form the soul are equally present in all parts of it and are all necessary for its rational processes (*Timaeus* 35 A, 37 A2-C5), this constitutive Difference cannot be made the cause of irrational motions (as is done e.g. by Robin, 1935: 228) without attributing these motions to the rational soul *quâ* rational. Cf. Cherniss, 1944: 410, n. 339, and 446, n. 387; Meldrum, 1950: 67-68.

²⁹ *Laws* 896 D10-E6, according to which we cannot say that a single soul controls and inhabits all moving things and so must control the heavens too but must assume at least two, beneficent soul and soul capable of the contrary. What follows in 898 C and 899 B proves that this is meant to assert the existence not of two world-souls, one good and the other evil, but of two *kinds* or *aspects* of soul (cf. *Phaedrus* 246 B6-C6). The question at issue is which kind of soul (*πότερον ψυχῆς γένος* [897 B7]) controls the circuit of the heavens and the heavenly bodies; and, as the *ἀριστερὴ ψυχῆ* of 897 C7 and 898 C4 means "the best *kind* of soul," so *ἡ κακὴ* of 897 D1 and *ἡ βλαβερὰ* of 898 C4-5 means "the bad kind." It is not even asserted here that there is a single good world-soul; on the contrary, in the conclusion that soul which is the cause of the heavenly circuits must be completely virtuous the question whether this kind of soul is itself one or more than one is expressly left open (898 C6-8, cf. 899 B5-6: *ψυχὴ ἢ ψυχῶν πάντων τούτων αἰτίας*). In 904 A-E and 906 A-C there is no mention of any good or evil world-soul either but only of good and bad kinds of soul (cf. 904 B2-3: *δοῦν ἀγαθὴν ψυχῆς . . . τὸ δὲ κακὴν*) and a plurality of both kinds (cf. 904 E 5-7).

³⁰ *Laws* 896 D5-8; cf. *Charmides* 156 E 6-8.

³¹ *Timaeus* 46 D5-E6; cf. *Laws* 894E-895B, 896A-D.

³² E.g. *Republic* 353 E; *Laws* 904 B-E, 906 B. It is not disorder in human affairs alone that is caused by evil

according to its knowledge or ignorance, for soul is self-motion the mode or direction of which is determined by its knowledge, exact or erroneous, of the ideas and their relations to one another and which sets phenomena in motion in accordance with this knowledge or ignorance.²³ Among these objects of knowledge there are, moreover, ideas of certain phenomenal evils. Not of all, for much of what we term evil is merely negative, a phenomenal deficiency or deviation from the positive idea imperfectly reflected or imitated; but many such terms have a positive content too and as such must refer to real entities among the ideas. Of these latter, however, many again, though ideas of phenomenal evils, are not themselves evil. Such, for example, are the ideas of diseases which have constitutions of their own like living organisms; these are as ideas no more evil than are the ideas of man, of wolf, or of lion, but the phenomenal manifestations of all of these may by mutual interference in this world be evils relatively to one another. Similarly such ideas as pleasure, pain, and desire are not as ideas evil either; but their phenomenal manifestations, though they can be good, are frequently evil relatively to the circumstances and degree of their manifestation. Besides these, however, there are positive vices; of these the logic of Plato's doctrine requires that there be ideas, and the existence of such ideas he always, in consistency with that logic, maintained. Yet even these are not of themselves causes of evil in the phenomenal world. They are manifested as evil here only by soul which in ignorance mistakes their true nature and their relation to the Good, just as desire, pleasure, and pain have evil manifestations in this world only when the mode and direction of psychical motion is determined by error concerning their nature.²⁴

souls, as is sometimes asserted (cf. Festugière, 1949: 110-111, 130); the evils produced by soul *ἀνά τὴν ἐγγαστήρην* include merely physical change and disorder, just as *Timaeus* 48 A5 ff. and 57E-58C show that the effects of the errant cause extend throughout the whole physical universe.

²³ Cf. *Laws* 896 E8-897 B5, where B1-4 gives the reason for the good and the evil effects of soul (cf. 898 B5-8). *Phaedrus* 246 B6-C6 expresses the same notion in mythical language, the vision of the ideas being the nourishment of the soul's plumage (cf. 248 B5-C2).

²⁴ See for ideas of diseases: *Phaedo* 105 C and *Timaeus* 89 B-C; of desire: *Philebus* 34 E (cf. Aristotle, *Topics* 147 A5-11); of positive vices: *Euthyphro* 5 D, *Republic* 402 C and 476 A, *Theaetetus* 186 A8, *Sophist* 251 A, *Laws* 964 C. On ideas of evil cf. Cherniss, 1944: 266, n. 175 (on p. 267) and for the opinions of later Platonists *ibid.*: 277, n. 176. The list of passages cited above refutes of itself Chilcott's

What the ultimate cause of such error is, why soul should ever lapse from complete and accurate knowledge of the ideas, to this question Plato can, of course, give no adequate answer. He can only clothe in mythical language the assumption that this is so²⁵ or argue that epistemological considerations necessitate and justify the assumption.²⁶ But this assumption granted, it follows that soul, moving in ignorance or forgetfulness of the true nature of the ideas and especially of the relation obtaining between any of them and the idea of good, must cause evil in whatever part of the phenomenal world it affects by its motion, for it will misarrange the reflections of reality and may in its error even come to regard as real and take for the patterns of its action these spatial reflections themselves instead of their originals.²⁷ So positive evil in the world, both absolute and relative, is produced by the misguided motion of evil souls.²⁸ These, since they move in ignorance of

statement (1923: 28) that, while ideas of evil appear in dialogues of "the middle period," this theory is criticized in the *Parmenides* and *Sophist* and that evil in the *Philebus* and *Timaeus* "has a purely negative existence." *Parmenides* 130 C5-E4 far from being a criticism of such ideas emphasizes Plato's refusal to breach the logic of his theory by rejecting them, and the doctrine of the *Sophist* does not eliminate such ideas so long as they have positive meaning (cf. Cherniss, 1944: 265-266; Ross, 1951: 169). Like many others, Chilcott (*ibid.*: 28 and 29) feels that the existence of such ideas is incompatible with *Republic* 509 B6-8, which he takes to mean that *ἀντὶ τοῦ ἀγαθοῦ* is "the source of all existence." In fact, however, that passage need mean no more than that the ideas are what they are and are rightly known as such only in the light of the idea of good. This would be hard to reconcile with the existence of the ideas of positive evils that Plato clearly does posit only if by it he had meant, as Chilcott and many others under Neo-Platonic influence assume, that all ideas are derived from the Good or are created by it; but this the passage does not say, and that it was not so meant is shown by the interpretative summary at 517 C3-5, where it is said not that the idea of good is the source or origin of the ideas but that in the intelligible world it provides truth and intelligence (*ἀλφειαν καὶ νοῦν*). Cf. with this 508 D4-6: when the soul fixes itself upon that which *ἀλφειὰς* *τε καὶ τὸ θεῖον* illuminate, *ἀνέσταις τε καὶ ἴσως ἀντὶ τοῦ ἀγαθοῦ φέρεται*.

²⁵ As e.g. in *Phaedrus* 248 C5-8 and in *Timaeus* 41 D6-7, where the ingredients of the immortal part of the human soul are said to be the same as those of the world-soul "but no longer so pure."

²⁶ As in the *Meno* (85 B-86 B) where it is contended that the soul "recollects" knowledge the source of which could not have been sensible experience and which therefore it must have possessed outside of the sensible world and have "forgotten"; cf. *Phaedo* 72 E-73 A, 74 A-76 E.

²⁷ Hence the tendency of evil souls "to cleave to the corporeal": cf. *Phaedo* 81 B-D (n.b. 81 B 3-8).

²⁸ That this is true of relative evils in the second sense above, e.g. evil desire, is obvious, for they are all manifested

truth, do not intend as evil the evil that they cause;³⁹ but the motions that they induce directly in phenomena are nevertheless induced deliberately and consequently cannot be the random motions of the errant cause, for these are motions transmitted by an object which has itself been set in motion by something else and are distinguished as secondary from the primary causality of soul.⁴⁰

These random motions of secondary causality must have their ultimate source, however, in the primary causality of psychical self-motion; they do, in fact, follow inevitably the operation of this primary causality, whether it be good or evil. Consider the case of fully intelligent soul, the mode and direction of whose motion are in accord with its complete and constant knowledge of the ideas—the case, in short, of god or gods, for perfectly virtuous soul, that is fully intelligent soul, is what Plato means by god.⁴¹ Soul of this kind in

only in soul as modes of its motion (cf. *Laws* 897 A 1–4), the result of misjudging the true relation to the good of the ideas of desire, pleasure, pain, etc. It is true, however, of relative evils in the first sense also, e.g. diseases that are natural organic units. These are, in the first place, evil only in the mutual interference of their phenomenal manifestations, an interference caused by soul's maladministration of phenomena. Moreover, they are all living organisms, and so their phenomenal manifestations, being animate, are directly controlled by soul; and Plato goes so far as to suggest that the phenomenal manifestations of all animate beings lower than man is the direct result of successively greater degrees of depravity of soul: cf. *Phaedo* 81 E–82 A, *Timaeus* 91 D–92 C (cf. 42 C), *Laws* 903 D3–E1 and 904 B6–E3; *Republic* 620 A–I and *Phaedrus* 249 B imply the same notion.

³⁹ *Laws* 860 D1 and the passages listed by Shorey *ad loc.* (1933: 640); cf. More, 1921: 243–261.

⁴⁰ *Timaeus* 46 E1–2, *Laws* 897 A4–5. Cf. for the following account of the errant cause Cherniss, 1944: 446–450. Morrow (1950: 153–154) holds that by “Necessity” in the *Timaeus* Plato means the dependable natures at the disposal of the Demiurge and the regularity of the effects that they produce upon one another: “the world on which the creator sets to work is characterized by necessity in the sense that specific effects follow regularly from specific causes.” If this were true, Plato would hardly have described the mythical chaos on which the Demiurge sets to work as *κυρόμενον πλημμυλῶς καὶ ἀτάκτως* (*Timaeus* 30 A4–5) and he certainly would not have called necessity in the sense in which he here uses it the *πλανομένη αἴτια* (*Timaeus* 48 A6–7) or identified it with the secondary causes which *τὸ τυχόν ἀτακτὸν ἐκάστοτε ἐξεργάζονται* (*Timaeus* 46 E5–6). This last passage, as Meldrum says (1950: 66, n. 10 *ad fin.*), “forbids us to interpret Necessity in terms of Regularity of Sequence or natural law.” The nature of “errant” motion is well exemplified by the statement in *Timaeus* 43 A7–B5: . . . βίη δὲ ἐφέροτο καὶ ἔφερον, ὥστε τὸ μὴ δλον κυρεῖσθαι ζῶον, ἀτάκτως μὴ δπη τύχαι προΐεναι καὶ ἀλόγως . . . καὶ πάντα κατὰ τοῦτ' ἐξ τόπου πλανώμενα προβαλ.

⁴¹ For proof of this cf. Cherniss, 1944: 602–610, especially 606–609. Apparently under the influence of Hackforth's

organizing phenomena moves them with a purpose perfectly good and sets them in motion proper to this end; but phenomena thus intentionally set in motion, since they are moved in a plenum of phenomenal reflections, must by their motions displace other phenomena, which in turn displace still others in directions unrelated to the intention of soul in moving the first directly. These secondary motions, as Plato calls them, the motions of phenomena induced by the movement of other phenomena and necessarily moving others in turn, intelligent soul in its demiurgic action seeks to employ for its own good end by making them conform to the plan of organization.⁴² This it does by inducing in these secondary motions an alteration of direction, thus persuading them to cooperate with its original purpose;⁴³ but in so doing the demiurgic action again indirectly sets up in other phenomena another series of motions unrelated to its intention, motions that are neither intelligent nor purposive but accidental, random, and erratic. This is the errant cause or necessity, which reason can at best organize “for the most part” because the very act of organizing it begets a random residue of motion. Hence there is disorder which is the necessary incidental result of the action of soul—even of perfectly good soul—in delimiting and ordering the confused and indeterminate spatial reflections of reality. Evil souls, in their ignorance mistaking such disorder for good, may augment it; but the general flux of phenomena is not attributable either to their purposive action or to any spontaneous motion inherent in corporeality. As the *Timaeus* explains, it is the complex of secondary motions produced incidentally by the perfectly rational world-soul as it induces directly the rational motion of rotation in the spherical plenum of spatial figures, themselves delimited by reason.⁴⁴

article, which I have there criticized (*op. cit.*: 606–608), Greene (1944: 292, n. 95; cf. 287, n. 50; 311 and n. 235) goes so far as to write: “Plato does not say that either kind of soul, good or evil, is a god.” This is, in fact, just what he does say in *Laws* 899 B5–8: “Since the causes of all these are soul or souls—and souls good in all virtue—, we shall say that they are gods. . . .” Virtuous soul is soul that has acquired intelligence (*Laws* 897 B 1–5 and 897 B8–C2). In the *Timaeus* the work of the Demiurge is the work of intelligence (*Timaeus* 47 E3–4, cf. *Laws* 966 E4), and the only entity that can have intelligence is soul (*Timaeus* 46 D5–6); and *Phaedrus* 249 C5–6 (cf. 247 D1–5) states that god's divinity is the result of constant contemplation of the ideas.

⁴² *Timaeus* 68 E1–6, *Laws* 896 E8–897 B4 (cf. *Timaeus* 46 D1–E2).

⁴³ *Timaeus* 48 A2–5 and 56 C3–7.

⁴⁴ Cf. *Timaeus* 57 D–58 C; for the detailed interpretation

So, while all positive evil, both absolute and relative, in this world is caused directly by soul moving its objects intentionally but in ignorance of truth, soul, whether virtuous or evil, is also unintentionally and indirectly the source of evil that is necessarily incidental to its direct influence upon phenomena, whereas the negative evil inherent in the existence of the world as phenomenal is only the obverse of its goodness as a reflection—though only a *reflection* and therefore a derogation—of perfect reality. The question concerning the cause or source of evil is not the same, however, as the question of moral responsibility, with which it is often unconsciously confused. This confusion alone explains, I believe, such arguments as the one that it is grotesquely un-Platonic to make soul itself the cause of the instability of becoming and that therefore we must not take at its face value Plato's categorical assertion that soul is the cause of all motion and change.⁴⁵ For negative evil, whether the cause be considered the existence of space itself or the reflection that is an immediate consequence of its existence, nothing and no one is responsible; and for incidental evil, of which soul is certainly the ultimate cause though the necessary condition is the nature of phenomena once moved by soul to move one another, soul is not responsible either. There is moral responsibility only for the positive evil, of which soul is directly the cause, and for the ignorance of truth in which moving intentionally it produces such evil.

It may be said that this account fails to solve the

of this passage and its implications see Cherniss, 1944: 444-445 and especially 448-450. In the myth of the *Politicus* the crucial passage, 273 B-D, implies the same explanation of the errant cause, there regarded in abstraction from intelligent causation. When the demiurgic guidance has been withdrawn, the world, left to itself, at first remembers the instruction of the Demiurge fairly accurately but with gradually increasing vagueness as forgetfulness increases and its old disorder gains dominance. The corporeality of its constitution, the demiurgic guidance now abstracted from it, is the cause of this. In other words, the direction given to phenomena by the motion of intelligence persists, though with diminishing effect, through the series of secondary causes for a time even when no further intelligent impulse is being given; but the further from the impulse of intelligence these series of secondary motions proceed the more the effects of that impulse wane and the greater in number become the merely random motions induced at each stage until at last the effect of the distant impulse of intelligence is virtually obliterated and the world is on the point of being nothing but the residual chaotic motions of secondary causality and of "running down" into "the limitless sea of dissimilarity."

⁴⁵ So Vlastos, 1939: 82. Cf. *Laws* 896 B1.

"problem of evil," and so it does if evil is a problem to be solved only by demonstration of its non-existence or by moral justification of it as the necessary condition for the existence of good.⁴⁶ Either of these "solutions" would have appeared to Plato to be an immoral falsification of the data of experience. Evil, like other phenomena, he regarded as something to be explained, not to be explained away; and all his remarks on the subject, when read in the light of this purpose, cohere to form a consistent account of evil which is a consequence of his analysis of the phenomenal world as a moving reflection in space of immutable, non-spatial reality.

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⁴⁶ Cf. Greene, 1944: 298.

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KLARA BUCHMANN. Die Stellung des Menon in der platonischen Philosophie (*Philologus, Supplementband XXIX, 3*). Leipzig, Dietrich, 1936. Pp. 102.

Accepting without question the opinion that the *Theaetetus* marks a turning-point between the "middle" and "late" periods of Plato's philosophical development, the author of this dissertation sets up the thesis that in the *Meno* we have an analogous document marking the end of the early "aporetic" period and the beginning of the "Lehrschriften" which present Plato's positive philosophy. To establish this thesis she seeks to show first that the Socrates of the *Meno* unites the characteristics of the earlier and later portraits: In the *Meno* Socrates is at once "nichtwissender Frager und wissender Lehrer." The structure of the dialogue, too, differs from that of the earlier ones—except the *Protagoras*—, having the two parts given over to investigation separated by an interlude;¹ and in the rôle given Socrates in these three parts again a combination of earlier and later forms is found: "Einsetzend mit einer Frage an Sokrates als einen Wissenden kehrt der Menon . . . zunächst äusserlich zur Form der frühen Dialoge zurück, wächst in seinem Mittelteil zur Lehrform . . . und vereint schliesslich in der Untersuchung der Lehrbarkeit beide, die Lehrform mit der Frageform überdeckend."

The aporetic character of the early dialogues represents Plato's own uncertainty, Dr. Buchmann insists, and the change in the *Meno* (which, she holds, does not end in an aporia) is to be explained by assuming that Plato had now found the solution to the Socratic problems in the two positive doctrines which are here introduced, that of the *εἶδος* and *ἀνάμνησις*—with its corollary, *ὁρθὴ δόξα*. The *εἶδος*, of which this dialogue is the first to treat and of which it alone gives a real explanation (p. 38), is to be interpreted neither logically nor metaphysically (i. e. as transcendent) but as "gegenstands-immanente Grundgestalt." It solves the Socratic difficulty of the unity of virtue. The problem of the teachability of virtue is resolved by the new conception of "learning" involved in *ἀνάμνησις*, while the new intellectual factor of *ὁρθὴ δόξα* clears up the relationship of virtue to knowledge.

To review the arguments for and against the general theory of development would be fruitless; all that can profitably be done is to test the specific interpretations brought forward to

¹ Such is the structure of the *Protagoras* also, but the interlude which in the latter is "anmutsvolles Spiel" is in the *Meno* "bedeutungsvoller Ernst." Plato took over in the *Meno* structural elements of the *Protagoras* but instilled into them deep meaning (p. 19).

support each new construction.² In the first place, one will ask how the theory of *ἀνάμνησις* solves anything if the *εἶδος* is not somehow separate from the particulars. To this the author answers with the contention that the *πάντα χεῖματα* which the soul has "seen" are not the "ideas" but "alles überhaupt Seh- und Erfassbare," "einfach das Gleiche . . . was sie auch in dieser Welt prinzipiell erkennen kann" (p. 60, n. 142; pp. 65 and 70). Yet obviously it was while disembodied that the soul got its knowledge so that what it "saw" could be only non-sensible; and, since in the *Meno* "to know" is admittedly to know the *εἶδος*, the *εἶδη* that the soul has known must be non-sensible.³

Whether transcendent or not, is the *εἶδος* in the *Meno* a "new conception" of Plato's? One thinks immediately of the *Euthyphro* (5 D, 6 D-E, 11 A). Dr. Buchmann has thought of it too (p. 51, n. 127); and, though she does not quite dare to declare the dialogue spurious, she can suggest no other way of avoiding the fact that it presents the notion of the *εἶδος* quite as clearly as the *Meno*. Her suspicions of it, however, are groundless. Pointing to 5 C (*ποῖόν τι τὸ εὐσεβὲς φῆς εἶναι*) she says that in the *Euthyphro* there is no difference among *ποῖον*, *τί*, and *εἶδος*. Socrates' demand for a definition, however, does not

² The author guards herself by occasional remarks such as this: "Wie weit die inhaltliche Fassung der rein theoretischen Gehalt . . . der tatsächlichen Auffassung Platons zu diesem Zeitpunkt entspricht, dürfte sich endgültig vielleicht nicht entscheiden lassen" (p. 101). Yet her whole method presumes that "the first appearance" is equivalent to "Plato's discovery"; and on the same page she writes of the *Meno*: "Platon hat ein Jenseits entdeckt und sieht im Lichte dieses Jenseits die Probleme seiner Frühzeit . . . gelöst." So she thinks (p. 60) that, since the explanation of the possibility of knowledge ought to be the introduction to a positive system, it is improbable that Plato could have known before the *Meno* the doctrine of *ἀνάμνησις* which here is introduced to solve this problem.

³ Surely Dr. Buchmann would not contend that the doctrine that sensibles are perceived only through the bodily senses and non-sensibles by the mind alone was unknown to Plato when he wrote the *Meno*! It is further impossible to argue, as she does (p. 70), that when Socrates asks (85 D-E) whether anyone had taught the slave geometry, he implies that one can learn in this world exactly what one has learned in the other. That would only raise Meno's question again: how could the boy then have learned what he did not already know? Besides, Socrates identifies all "learning" with recollection (81 D 2, 87 B 8 f.) and contends that the soul has come to know *everything* in the other world (81 D 1, 86 B 1). The question is dialectically necessary merely to show that the slave had not "known," in Meno's sense, what he had just remembered. Dr. Buchmann disregards Socrates' explicit statement that he is here concerned not with the theory in detail but only with opposing the "lazy counsel" of Meno's question: *καὶ τὰ μὲν ἄλλα οὐκ ἂν πάνυ ὑπὲρ τοῦ λόγου δυσχυρισαίμην κτλ.* (86 B 6 ff.). Note the use to which he puts the notion of immortality in 85 B 1-4: since the soul is immortal we should not despair of the search for what we do not know; "leave Now for dogs and apes! Man has Forever."

really start until 5 D where he asks τί φησιν εἶναι τὸ ὅσιον; moreover, in 11 B in asking again ὅτι ποτ' ἔστιν he makes explicit the distinction between οὐσία and πάθος (cf. *Gorgias* 448 E 6-7: οὐδεὶς ἐρωτᾷ ποία τις . . . ἀλλὰ τίς). Nay more,—in 12 A-C the genus-species relationship is carefully explained (cf. 12 C 5: ἐπὶ πλεον γὰρ αἶμαι δέος αἰδοῦς), a notion of which Dr. Buchmann thinks that Plato was ignorant when he wrote the *Protagoras*; and justice and piety are explained as having this relationship (11 E 7-12 A 2; 12 C 10-D 4), although she believes that the suggested identification of the two in the *Protagoras* was due to Plato's ignorance of the logical nature of the concept (pp. 44-45). I doubt not that this will only strengthen Dr. Buchmann's suspicion of the *Euthyphro*, though I feel that the fault lies rather with her own theory about Plato's "development," just as, when I find mention of an idea of impiety, I am more inclined to doubt Stenzel's theory about εἶδος and ἀρετή than the Platonic dialogue,—but Dr. Buchmann seems to think that Stenzel must be right as against the *Euthyphro*. The *Euthydemus*, too, is incompatible with her theory. She places it before the *Gorgias* and *Meno* (p. 17, n. 55); but she does not mention the unmistakable reference to *transcendent ideas* which it contains: ὁμοίαι δὲ ἕτερα [scil. τὰ πολλὰ καλὰ] ἔφην αὐτοῦ γε τοῦ καλοῦ· πάρεστιν μέντοι ἐκάστῳ αὐτῶν καλλότερον τι (cf. *Hippias Major* 289 D, *Phaedo* 100 D). Still she may wish now to have the *Euthydemus* follow the *Phaedo*, where, according to her theory, such ideas first occur. After all, she assumes without argument the old theory that *Republic* I was a separate and "early" dialogue, the *Thrasymachus*; and she assumes this because on her theory Socrates is the "questioner" only in the early, "aporetic" dialogues and the one questioned in the later positive writings (p. 20).

Dr. Buchmann's notions about the *Meno* derive ultimately from her conviction that it is the first dialogue that does not end in an "aporia." Now it has long been recognized that this dialogue contains the material which in "later" dialogues is used to solve the Socratic puzzles; but that is not quite the same thing as Dr. Buchmann's thesis. After all, the statement that there is virtue which is θεία μοίρα ἀνευ νοῦ is itself really a hidden aporia as is shown by the closing remark that this conclusion is the result of Meno's refusal to allow Socrates to investigate the question in the proper fashion: τὸ δὲ σαφὲς περὶ αὐτοῦ εἰσόμεθα τότε, ὅταν πρὶν ᾗτινι τρόπῳ τοῖς ἀνθρώποις παραγίγνεται ἀρετή, πρότερον ἐπιχειρήσωμεν αὐτὸ καθ' αὐτὸ ζητεῖν τί ποτ' ἔστιν ἀρετή (100 B 4-6). Dr. Buchmann does not give enough weight, I think, to the fact that the *Protagoras* ends with very nearly the same words (361 C 4-6). Since the virtue which is θεία μοίρα puts the statesmen on the same level as oracle-mongers, seers, and poets (*Meno* 99 D), it is difficult to believe that Plato thought himself to have presented here a new "positive" solution (cf. *Ion* 536 C);

and the attempt to press the word *δόξα* to yield a theory for the *Meno* which is dropped in the later theory of ideas will not, I think, stand the test of comparison. Even in the *Republic*, after the "völlig neu eingeführt" distinction between the objects of *δόξα* and *ἐπιστήμη* (477 E ff.), the word *δοξάζειν* is used of the activity of the best part of the soul as well as of the lower part (603 A) and in the *Theaetetus* (187 A) it applies to the soul *ὅταν αὐτὴ καθ' αὐτὴν πραγματεύηται περὶ τὰ ὄντα*. The evidence shows that Plato was likely at any time to use *δόξα* either "of the belief that accompanies αἰσθήσεις or of the operation of the mind as opposed to sensation" (Shorey, *Unity*, p. 49) or even as a general term to include both of these notions.

Phyllobolia für Peter von der Mühl zum 60. Geburtstag am 1. August 1945. By OLOF GIGON, KARL MEULI, WILLY THEILER, FRITZ WEHRLI, and BERNHARD WYSS. Basel, Benno Schwabe & Co., 1946. Pp. 288.

This handsome volume contains five essays written by five of Professor von der Mühl's former pupils, all of whom are scholars of international reputation teaching in Swiss institutions of higher learning. In the first and briefest of these essays, "Der erhabene und der schlichte Stil in der poetisch-rhetorischen Theorie der Antike" (pp. 9-34), Fritz Wehrli connects the conception of the "elevated" style with Democritus' theory of inspiration, to which he would also assign the notion of the "magnetic" transfer of enthusiasm from poet to performer to audience which is proposed in Plato's *Ion*; ¹ and he contends that the influence of Democritus is to be reckoned with wherever in ancient theory the "elevated" style is held to be the expression of πάθος or higher sentiment as it is in the Περὶ Ὑψους. He argues that the inspirational theory of poetry in the *Ion*, the *Apology*, and the *Phaedrus* is Democritean though mixed with Gorgianic elements, Gorgias having elaborated the aperçus of Democritus into a system of rhetoric and poetics which swiftly became common property, so that neither Plato nor Aristophanes before him needed to get his knowledge of it from any particular writing of Democritus or Gorgias. This last point is apparently a concession to Kranz's criticism ² of Pohlenz's thesis ³ that Aristophanes used as his source for the *Frogs* a specific book of Gorgias. Pohlenz, moreover, had maintained that this book contained a comparison of the styles of Aeschylus and Euripides; ⁴ but Wehrli, though he believes Gorgias to have been the source of the Aeschylean defence of the "lofty" style, sees behind the Aristophanic criticism of Aeschylus which is put into the mouth of

¹ Wehrli does not attempt to prove that the theory of "magnetic transference" belonged to Democritus himself, and he does not mention Delatte's attempt to demonstrate it (*Les Conceptions de l'Enthousiasme chez les Philosophes Présocratiques*, pp. 59 ff.). Neither Wehrli nor Delatte observes that in introducing the theory (*Ion* 533 D) Socrates refers to Euripides for the name λίθος Μαγνήτης, and that in the fragmentary passage of the *Oeneus* which is presumably meant (frag. 567 [= 571]) Euripides compares to a magnet the influence of someone or something upon the human mind. One might suppose that by this Plato meant to indicate that Euripides was the immediate inspiration of his figure in the *Ion*.

² W. Kranz, *Stasimon*, p. 268.

³ *Gött. Nachr.*, 1920, pp. 142-178.

⁴ *Op. cit.*, pp. 158, 162.

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(Only Professor Cherniss' contribution is reprinted here)

Euripides another theoretician, whose name is lost but who was the forerunner of Aristotle in his preference for Euripides' language and his reasons for that preference. Both the "elevated" and the "plain" styles then are, according to Wehrli, recognized as such in the *agon* of the *Frogs*, although the point of departure for the later theoretical development was the *Rhetoric* of Theophrastus, for whom Wehrli seeks to vindicate against Stroux the two *genera dicendi* while conceding that the "middle" style is not so ancient. The essay is concluded by an analysis of the position of the school of Callimachus, which in attacking the "elevated" style sought not the traditional clarity (τὸ σαφές) of the "plain" style but technical flawlessness, and of the way in which the purists moved closer and closer to the Callimacheans as their striving for "pure Attic" necessarily led them to archaize and thereby to abandon their original ideal.

Wehrli has made many keen observations in this essay, but his central thesis concerning the "rhetorical-poetical system" of Gorgias is supported by arguments too tenuous to enforce conviction.⁵

The second essay, "Tacitus und die antike Schicksalslehre" (pp. 35-90) is an elaborate piece of "Quellenforschung" by Willy Theiler, the conclusion of which is that in *Annales*, VI, 22 Tacitus has condensed the doctrine of Gaius the Platonist concerning the choice of life (*ac tamen electionem vitae nobis relinquunt, quam ubi elegeris, certum imminantium ordinem*) and his polemic against astrological and aetiological destiny on the one hand and against the Epicurean position on the other. Theiler conjectures that Tacitus wrote this passage, which would then be the oldest testimony to the work of Gaius, soon after returning to Rome from his proconsulate in Asia Minor where he may have become acquainted with the philosopher or with one of his books. So little is certainly known about Gaius that even the chronology required by this combination is precarious.⁶ That the words of Tacitus quoted above represent

⁵ Wehrli does not really adduce any new evidence to show that Gorgias had such a "system." As for the *agon* of the *Frogs*, the crucial factor of inspiration is absent both from the description and from the criticism of the style of Aeschylus, who is there made to ascribe his style rather to the influence of Homer's works (*Frogs* 1040). It is far-fetched to argue that the mere use of ἐξέπληττον in Euripides' criticism of Aeschylus (*Frogs* 962) implies the Gorgianic psychagogical theory; and it is at least precarious to conclude from σαφές δ' ἂν εἴπεν οὐδὲ ἔρ (927) that behind Euripides' criticism lies the theory of the "plain" style (Wehrli, p. 24), for at 1434 Dionysius declares that Aeschylus has spoken σαφῶς in contrast to Euripides.

⁶ It is unlikely that the proconsul would have known Gaius or his writings unless the latter was already a teacher of some repute in 112-114. (It is not certain, in fact, that Gaius lived in Asia Minor, although later one of his pupils taught in Smyrna and another in Pergamum; the Bacchius, son of Gaius by adoption, in Dittenberger, *S. I. G.*, II², 868 B is there listed as an Athenian.) Theiler therefore argues that Gaius must have been born about 75, since his pupil and adopted son Bacchius became the tutor of Marcus Aurelius about 130. The Delphic inscription which honors Gaius the philosopher, son of Xenon (Dittenberger, II², 868 C) Theiler (p. 70, n. 3) would date ca. 135 instead of ca. 145 with Dittenberger and apparently would date 868 B, which honors Bacchius, some ten years earlier than the "paulo ante a. 163" to which Dittenberger assigned it.

the doctrine of Gaius Theiler concludes from the fact that the same secularized interpretation of the Myth of Er in connection with the problem of fate and freedom appears in the *Didaskalikos* of Albinus (chap. XXVI, p. 179, 1-17, Hermann), who was a pupil of Gaius. Since Theiler has argued that the words of Tacitus which precede these (*contra alii fatum quidem congruere rebus putant sed non e vagis stellis verum apud principia et nexus naturalium causarum*) represent the doctrine of Chrysippus as recast by Philopator, a contemporary of Gaius, in which form it was known to our sources from a polemic against Philopator, he concludes that this polemic and the reply to the Epicurean thesis reproduced by Tacitus, parallels to which he finds especially in Nemesius as well as in Albinus, were composed by Gaius as an introduction to his own solution of the problem of determinism and freedom.

Mere consideration of the text of Tacitus suggests two reasons for caution. In the first place, the two passages quoted above, *contra alii fatum . . . putant . . .* and *ac tamen electionem vitae nobis relinquunt . . .*, belong together and appear to give two parts of a single doctrine; at any rate, the expressed subject of both is the same, and there is no reply to the first part as there later is to the Epicurean position, even if *tamen* be taken as an indication that Tacitus saw an inconsistency between the two parts of the one doctrine. Theiler has sensed this difficulty himself but thinks (p. 82, n. 3) that Tacitus abbreviated his source so severely that the result misrepresents the relation of two different doctrines. In the second place, the last sentence but one in chapter 22 expresses, as Theiler points out (p. 90), a notion that had been expressed by the elder Pliny (*Nat. Hist.*, II, 7 [5], § 23). Tacitus' source for this, then, was probably not Gaius, nor does Theiler attempt to prove that it was; but, since this sentence is as closely connected with the rest of the chapter as is any other, one wonders whether it is necessary to seek a single source for all the other opinions here and to assume that the account could not have been put together by Tacitus himself. Nevertheless, Theiler's case deserves the closest scrutiny; and, even apart from his thesis concerning the source of this chapter of the *Annals*, his collection and analysis of material concerning the ancient debates on determinism and freedom have an abiding value in themselves.

The third essay (pp. 91-152), Olof Gigon's "Studien zu Platons Protagoras," contains the sensational suggestion that Plato was not the author of the *Protagoras*. Gigon does not commit himself unequivocally to this thesis (cf. pp. 102-3 and 152), which outdoes the most extreme hypercriticism of the nineteenth century; but he makes it clear that he believes this to be the most reasonable explanation of the awkwardness and incoherence, the unskillful combination of diverse sources, and the unplatonic character of both the thought and the composition that he detects in the dialogue.⁷ The avowed purpose of the study is not, however, to determine the authenticity of the *Protagoras* but to interpret it as a literary production, to

⁷ Gigon does not consider any of the external evidence for the authenticity of the dialogue. Aristotle does not cite it by name; but several of his statements appear to be references to it (e.g. *De Part. Animal.* 687 A 23-26, cf. *Protagoras* 321 C), and *Eth. Nic.* 1145 B 23-24 is practically a direct quotation of *Protagoras* 352 B-C.

bring to light its components and the process by which they were put together, and to show the disparity between the literary production that it is and an historical document. Beginning with the conviction that the dialogue fails to accomplish its literary purpose, which according to Gigon is to portray Protagoras as an inconsequential babbler in every way inferior to the strictly objective Socrates, Gigon proceeds to develop certain difficulties both in the form and in the thought of the dialogue which lead him to suggest that Plato was not its author and then devotes the great bulk of the essay (pp. 103-151) to a detailed but avowedly not exhaustive analysis and interpretation of the structure of the dialogue. In the course of all this he decides 1) that the introductory conversation of Socrates and Hippocrates and the main part of the *Protagoras* do not form an organic whole and could not have been written at one time (p. 111), 2) that the aporetic conclusion has no connection with the body of the dialogue but was tacked on to it just because the author thought that a Socratic dialogue had to end in this fashion (pp. 119 and 151), 3) that the identity of the virtues here defended by Socrates is not the Platonic "eidetic unity" but the doctrine of Euclides of Megara (pp. 99-101), 4) that Aristippus is the source of the argument concerning pleasure and knowledge and the hedonistic calculus here put into the mouth of Socrates as his own (pp. 101-2 and 147), and 5) that parts but only some "unmythical" parts of the myth were taken over from the works of Protagoras (p. 129).

Gigon's analysis should in fairness be examined and tested in detail; but, since the limitations of space forbid this procedure in a review, I must simply state my belief that a consideration of the passages which Gigon (to translate his favorite formula of transition) "leaps over" would cast a different light upon those passages which he does analyze and upon their relation to the dialogue as a whole. For example, he decides that the logical errors in the dialogue must have been "unintentional" (p. 139); but in coming to this conclusion he does not mention the protests of Protagoras that different and even contrary things may resemble each other (331 D-E) and that one cannot convert the universal affirmative (350 E-351 A). Surely the author of the dialogue knew that the fallacies against which these protests are made were fallacies, for it was he who put the protests into the mouth of Protagoras; and, since he entered the protests intentionally, he must have put with intention the fallacies to which these protests are made. It is the task of the interpreter to discover what this intention may have been, and this task would still remain to do even had it been shown that the author had copied the fallacies from one source and the protests from another. In the same way I should think it obvious that any attempt to interpret the section concerned with the discussion of Simonides' poem would involve consideration of 338 E-339 A where Protagoras states his reason for introducing this subject, 347 C-E where Socrates says what he thinks of all such discussions, and 341 D where Socrates declares the preceding interpretation a joke to test Protagoras; * but Gigon passes over all this without comment in

* Not to mention 342 A-343 C, which not only sets the tone of the subsequent "interpretation" (cf. A. E. Taylor, *Plato**, p. 255) but

his treatment of the section (pp. 143-5). Instead, he is concerned to show that the notions imputed by Socrates to Simonides are probably derived from Aristippus; and in this direction he goes so far as even to contend that 345 D-E has nothing to do with Plato's Socratic paradox that no man errs willingly, although the passage can refer to nothing else, since this alone could demand Socrates' fantastic construction of Simonides' sentence, whereas, if Gigon were right, Socrates could as well have construed *ἐκόν* with the following words in the way that Simonides intended.

The "Quellenforschung" of the essay is all highly conjectural, and Gigon admits in most cases that these conjectures of his cannot be supported by positive evidence. It is, however, as much his use of evidence as any lack of it that makes the results of his source-hunting so dubious. For example, he concludes (p. 100) from Aristotle, *Politics* 1260 A 27-28 that Gorgias had expressly denied any unity of the virtues and had declared them to be a pure multiplicity. Yet Aristotle in this passage almost certainly refers to nothing but *Meno* 71 E ff. (cf. 1260 A 20 ff. with *Meno* 73); and *Meno* 71 E not only does not imply a positive thesis of pure multiplicity but Meno's answer there is not even guaranteed by 71 D 6-8 to be a positive thesis of Gorgias at all, since one might as well argue from 76 B 1-3 that Gorgias did attempt to define virtue in general. Gigon's assignment (pp. 127-8, 129) of *Protagoras* 322 A 3-6 to a writing of Protagoras is open to a similar objection. It is not only the preserved sentence of Protagoras' treatise on the gods (*VS*⁶ 80 B 4), the apparent incompatibility of which with 322 A 3-5 Gigon tries to minimize, but also *Theaetetus* 162 D-E, which he does not mention, that makes this assignment improbable, besides the fact that the notion, though a commonplace, is a favorite one of Plato's (cf. *Timaeus* 42 A 1, *Laws* 902 B 5-6).

Of the general "difficulties" that Gigon finds in the structure and thought of the dialogue it seems to me that only the so-called "hedonism" raises a genuine problem;⁸ and this has been discussed so widely and at such length that I must content myself with saying that such treatments of it as those of Taylor (*Plato*³, pp. 260 f.), Shorey (*What Plato Said*, pp. 130 f.) and Moreau (*La Construction de l'Idéalisme Platonicien*, pp. 64 ff.) have by anticipation refuted Gigon's strict alternative, either an unplatonic stage of Plato's

which should be of special interest to anyone who like Gigon is considering the structure of the dialogue, since it is explicitly announced (342 B 3-4) as the counterpart of the speech of Protagoras on the sophists at 316 D ff.

⁸ That the order, myth-logos, in the *Protagoras* (320 C, 324 B) is contrary to Plato's procedure everywhere else (pp. 97-8) is erroneous; myth precedes logos in *Phaedrus* 274 C ff., *Politicus* 268 D ff., *Laws* 677 A ff. (cf. 682 A 7-9 and 682 E), *Laws* 713 A ff. Nor is it correct that, whereas *δωδεκα* is treated as a fifth virtue in the *Protagoras*, Plato elsewhere knows only four cardinal virtues (p. 99): cf. *Meno* 78 D 7 ff., *Laches* 199 D, *Theaetetus* 176 B; Shorey, *What Plato Said*, pp. 79-80 and 460. As to Gigon's contention (pp. 99-101) that the thesis as stated at 361 B 1-2 is an entirely different thing from that as stated at 329 C 8 f. and that this latter is not Platonic at all, it is here sufficient to observe that, even if these premises were true, Gigon's conclusions would follow only on the assumption that there is no dialectical development within the dialogue.

thought or spuriousness. For all that, Gigon's essay is worth careful study, for an examination of his dissections, though it prove his conclusions to be unfounded, should lead to a clearer understanding of the structure of the dialogue and the rôle which each part was meant to play in the whole composition.

The fourth essay, "Zu Gregor von Nazianz," by Bernhard Wyss (pp. 153-183) consists of three separate parts. In the first of these Wyss treats the text of three passages. He changes *καλύειν* in *Or.* 28 (Theolog. II), 11, *P. Gr.*, 36, 40 b to *κολούειν*, pointing out that the passage is written against Herodotus, VII, 10, 5; and he collects a number of passages which demonstrate Gregory's familiarity with Herodotus. He next shows that the text of *Epistle* 178 (37, p. 292 a, Migne), which is cited by Kranz in *VS*³, II, p. 226 (note to lines 13 ff.) is corrupt, that there was no reference here to Democritus but instead one to Aristophanes, *Knights* 217-19, and that the sense of the passage must have been *οἷς πλάττει τὸν Ἀγοράκριτον εἰς δημαγωγίαν Ἀριστοφάνης*. Finally he discusses the text and metre of the poem, *πρὸς πολυόρκους διάλογος* (*P. Gr.*, 37, 790-813), suggesting a number of emendations, the most interesting being that of line 311, which as emended is a parallel to Philo, *De Spec. Leg.*, 2, 4 (— V, p. 86, 8 ff., Cohn). In the second part of the essay Wyss treats at length the 60 extra verses of the poem, *περὶ διαθηκῶν* (*P. Gr.*, 37, 456-464), which Vári first published in his collation of the Codex Mediceo-Laurentianus. Wyss prints a corrected text of these lines with critical apparatus and "*similia ex aliis Gregorii carminibus petita*" and then by means of a detailed analysis and comparison proves that the lines are genuine and are in their proper place in the Laurentian codex. The third part is concerned with the source of Goethe's references to the Hypsistarians, who are mentioned once by Gregory of Nazianzus and once by Gregory of Nyssa. Wyss argues cogently that this source was Carl Ullmann's book, *Gregorius von Nazianz*, the preface to the first edition of which was dated 28 August 1825.

ON PLATO'S REPUBLIC X 597 B.

[This passage joined with others concerning the Ideas has generated two streams of interpretation: one, the Ideas are thoughts of God; the other, God and the Ideas are the same. Both interpretations are refuted; the passage is shown to be contradictory to Plato's doctrine as elsewhere expressed, and the contradiction is explained from the necessity of its context, the attack on the mimetic artist.]

The statement in Republic X 597 B: *ἣν φαίμεν ἂν . . . θεὸν ἐργάσασθαι* has disturbed every careful reader of Plato, for nowhere else in the dialogues is there any intimation that God created the Ideas. It is very probable that this passage was considered even in antiquity as a justification for the interpretation of the Ideas as the thoughts of God. To interpret the ideas in this way was common at the time Alcinous wrote; and the doctrine was certainly much older.¹ Philo Judaeus says explicitly that God created the Ideal world to serve as a pattern for the phenomenal creation and that the Ideas are the thoughts of God.² But whether or not the passage of the Republic was used in this connection in antiquity, it has been so interpreted in recent times. Jowett and Campbell annotate *ἐν τῇ φύσει* as follows: "In this passage Plato distinguishes the picture of the bed, the bed made by the carpenter, and the real bed which is ideal, essential, in the nature of things, in the mind of God." Constantin Ritter, in his latest book, has attempted to reconcile the relationship between God and the Ideas as expressed in this passage with that described in the *Timaeus*. He writes:³ "die Ideen sind ihrem logischen Gehalt nach göttliche Gedanken, ein Theil des Inhalts von Gottes Denken; aber zugleich sind sie ihrem Bestand nach als Bildungsgesetze göttliche Kräfte, ein Theil der Bestimmtheit von Gottes Schaffen." The passage has influenced J. A. Stewart's interpretation of the Doctrine of Ideas also, and he seems to feel that he has successfully explained Stallbaum's objection, that in *Timaeus* 52 A the Ideas are called *ἀγέννητοι* though in

¹ Chap. 9: *εἶναι γὰρ τὰς ἰδέας νοήσεις θεοῦ αἰωνίους τε καὶ αὐτοτελεῖς. ὅτι δὲ εἶναι αἱ ἰδέαι καὶ οὕτω παραμυθοῦνται.* For a discussion of the origin of the doctrine cf. R. M. Jones in *Class. Phil.* XXI, pp. 317-26.

² Philo Judaeus, *De Opificio Mundi*, chap. 16; *ibid.*, chap. 20.

³ *Die Kerngedanken der Platonischen Philosophie*, p. 321.

the Republic they are said to be the handiwork of God, by the remark: ⁴ "The Timaeus presents the Ideas as elements in the Eternal Nature of God, integral parts of his σοφία while the Republic lays stress on the point that the Divine Nature is *Causa sui*. The ἰδέαι, we are to understand, are not *arbitrary* products of God's Will: they are in accordance with his eternal Wisdom."

Stewart does not take the trouble to cite the passage in the Timaeus which presents the Ideas as 'integral parts of God's σοφία'; wherever in the Timaeus the Ideas are mentioned ⁵ they are spoken of in the language of pure and independent Being, as the pattern according to which God fashioned the phenomenal world, and nowhere in all the writings of Plato beside this one passage of the Republic do they bear any other relationship to God. When Stewart says that the Republic 'lays stress on the point that the Divine Nature is *causa sui*,' it is clear that it is this passage of the Republic which has caused him to read into the Timaeus a doctrine which is not there, and, although Stewart is pleased to call the Idea 'a law, a rule, a need to be met in a definite way' ⁶ rather than 'a thought of God', his doctrine that the Ideas are 'integral parts of God's σοφία' amounts to the same thing as the straightforward statement of Jowett and Campbell. As for Ritter's belief that the Ideas in respect of their logical content are thoughts of God, it suffices to point out that only from this passage of the Republic could one get such a notion and that this passage is completely unconcerned with logical problems, does not intimate that the Ideas are to be considered differently from the aspect of content and from the aspect of existence, and is merely meant to convict once for all the mimetic arts.

Beside the negative proof ⁷ that Plato nowhere intimates that

⁴ J. A. Stewart: *Plato's Doctrine of Ideas*, p. 61.

⁵ Timaeus 30 C-31 B, 37 C-D, 48 E-49 A, 51 B-52 D. Cf. also Phaedrus 247 D: οὐχ ἡ γένεσις πρόσκειται. Phil. 58 A: τὸ κατὰ ταύτῃν δὲ πεφυκός. Also Phaedo 78 D.

⁶ J. A. Stewart, *op. cit.*, p. 37.

⁷ Cf. also Parm. 132 B-C where it is explicitly denied that the ideas may be νοήματα ἐν ψυχαῖς. Although this is said of human minds, the passage at least implies that the arguments would hold for all ψυχαί, that of God included. Cf. A. E. Taylor, *Proceedings of the Aristotelian Society*, XVI, N. S., page 272.

the Ideas may be thoughts of God and that he constantly speaks of them in the *Timaeus* as the eternal patterns to which God looked in creating the world, there is an explicit reason why he could not have held that they were 'in God's mind' or in any way coincident with a part of the Divine Entity. At *Timaeus* 52 C he says that the paradoxical nature of space makes us incapable of understanding that, while an 'image' must be in something other than itself because it is not the pattern of itself, for the same reason that which has a real and unique nature of its own—i. e. an Idea—cannot exist in anything other than itself, for, if it did, it would be at once one and two.*

It is, consequently, certain that we must not attribute to Plato the doctrine that the Ideas were thoughts of God, in the belief that we may thus reconcile the *Republic* passage with the theory of Ideas as elsewhere expressed.

But, while it is impossible that the Ideas should be in God's mind or a part of God, the statement of *Timaeus* 52 C would not prevent us from attempting to solve the difficulty by considering God and the Ideas as really One and saying that Plato used the theological term and the metaphysical at different times to express the same thing, choosing his language in accordance with his mood and the object of his argument. This is the theory adopted by certain critics, notably Zeller and Adam. Zeller* at first treats the passage of the *Republic* cavalierly, saying that we must not consider it a philosophic explanation of the Origin of the Ideas, but later shows his real belief in the words "(Weiter ist zu erwägen) . . . daß andernteils Gott unserem Philosophen auch wieder mit der höchsten Idee zusammenfließt." Adam's attitude is displayed in his note on 597 E: "*πρίν τις κτλ.* :—when he tells us that God constructs the Idea of Bed, he means that the Idea of Good is the source of that Idea, and the Idea of Good is King of the Ideal World"; and on 597 B he writes: "If God and the Idea of Good are the same, Plato is merely saying in theological language what he formerly said in philosophical when he derived the *εἰδή* of all other ideas

* Of course, the phrase *ἐν τῇ φύσει* at *Rep.* 597 B is merely equivalent to *ἐν τῷ* and so is not obnoxious to the same objection to which *ἐν τῇ τοῦ θεοῦ ψυχῇ* would be.

* *Die Philosophie der Griechen* IV^{te} Auf. II^{ter} Theil I^{ste} Abt. S. 666.

from the Idea of Good.”¹⁰ The attempt to equate God and the Ideas must be at least as old as the variant $\pi\omicron\eta\tau\omicron\upsilon$ for $\nu\eta\tau\omicron\upsilon$ at the end of the *Timaeus*, and that variant goes back to Stobaeus. Archer-Hind in his edition printed $\pi\omicron\eta\tau\omicron\upsilon$, and Constantin Ritter¹¹ gets the same result by understanding $\theta\epsilon\omicron\upsilon$ with $\nu\eta\tau\omicron\upsilon$ and translating “das sinnliche Abbild des bloß in Gedanken vorstellbaren Gottes,” although everywhere in the *Timaeus* the world is spoken of as the image of the $\alpha\upsilon\tau\omicron\zeta\eta\tau\omicron\upsilon$.¹² However this equation has generally taken the form represented by Adam’s explanation; ‘God’ and ‘Idea of Good’ are two names for the highest Idea from which are derived all the other Ideas and ultimately also the phenomenal world. In the light of this belief, our passage is interpreted as meaning that the Idea of *Bed* is caused by the Idea of Good or derived from it.

This explanation, then, depends on the validity of two separate interpretations, the derivation of the Ideas from one supreme Idea, the Idea of Good, and the use of God and Idea of Good as equivalent terms. The first theory is based upon *Republic* 505-511 where Socrates describes the Idea of Good by means of the simile of the sun and especially 509 B where the Good is said to be the cause of the presence of Existence and Being in the objects of knowledge although the Good itself is not Being but ‘beyond Being in age and power.’ Since the very purpose of the hypostatized Ideas is the creation of an objective reference of judgment, the formal cause of every object and characteristic is the corresponding Idea. So beautiful things are beautiful because of the Idea of Beauty and good things good because of the Idea of Good. Also among the Ideas themselves there is communication, so that if you desire to call the Idea of Beauty good, you must say that it is so by reason of communication in the Idea of Good; but conversely the Idea of Good is beautiful only through participation in the Idea of Beauty.¹³ To Plato the Idea of Good was the cause of the

¹⁰ J. A. Adam: *The Republic of Plato*, Book VII, Append. III, p. 172: “The Idea of Good is the principle from which the other ideas derive their existence, etc.”

¹¹ *Op. cit.*, p. 234.

¹² Cf. A. E. Taylor’s *Commentary on Plato’s Timaeus*, p. 646.

¹³ *Rep.* 476 A, *Soph.* 253 D, 254 B-C, cf. *Theaet.* 197 D where the birds in the aviary are the ideas which communicate with other ideas: $\mu\omicron\tau\alpha\varsigma \delta\iota\alpha \pi\alpha\sigma\omega\upsilon \delta\epsilon\pi\eta \delta\epsilon \tau\acute{\upsilon}\chi\eta\sigma\iota \pi\epsilon\rho\omicron\mu\epsilon\tau\alpha\varsigma$.

cosmos only in the sense of the *Timaeus* where God is said to have created the world impelled by His goodness. And so, in a manner of speaking, the Idea of Good is above Being, because in this sense good things exist as good by reason of participation in that Idea. In describing the Idea of Good, Plato has in mind the training of the guardians and so is particularly concerned that they should come to know the source of all ethical action. Consequently, he is right in stressing the dignity and importance of the Idea of Good, for that is the cause of all purpose in the Universe, just as he is justified in allowing the Idea of Beauty to monopolize his attention in the *Symposium*.¹⁴ But in the tenth book his purpose is different; there is here no hint of the derivation of one Idea from another, but rather the implication that God made all the Ideas just as he made the Idea of Bed. However, if the usual teaching of the dialogues be applied, Plato would certainly say that the Good is the cause not of the Idea of Bed but of the element of moral purpose—if there be any—in that Idea.

So, even if God be the Idea of Good, we cannot accept the theory that this reconciles our passage with Platonic doctrine. But this second half of the explanation is even less valid than the first. In the *Timaeus* where both God and the Ideas appear, the former uses the latter as a pattern in fashioning the world; in the description of the Idea of Good¹⁵ God is not mentioned, and usually the Ideas are introduced without God. In the *Parmenides*¹⁶ it is objected to the theory of Ideas that it provides for no connection between the real and phenomenal world, which amounts to the complaint of Aristotle that the theory of Ideas does not provide an efficient cause. If it were true that Plato equated God with any one of the Ideas or with the Ideal World, this objection would be valid. But from the *Parmenides* it is obvious that he was aware of the difficulty, and it is just this function that the God of the *Timaeus* fulfills. He is the efficient cause which applies the Ideas to the matrix of space and so produces phenomena; this form of causality appears again in the *Sophist*¹⁷ as God, and in the *Philebus*,¹⁸ stripped

¹⁴ *Symp.* 210 A-211 E.

¹⁵ *Rep.*, 505-11.

¹⁶ *Parm.*, 133 C-134 E.

¹⁷ *Soph.*, 265 B-C.

¹⁸ *Phil.* 23 C-D and again 26 E.

of metaphorical language, it is called the cause of the combination of the *ἀνείρον* and the *πίρας*, while in the tenth book of the *Laws* it is the divine soul which moves the heavens and all that the heavens contain.¹⁹ If Plato frequently talks of the Ideas without mention of God it is because he is not always concerned to describe his entire metaphysical machinery. The description of the Idea of Good in the *Republic*, like Diotima's speech in the *Symposium*, is psychagogic in purpose, and for this reason the Ideas are treated as goals toward which to strive; the fact of their relationship with the phenomenal world is explained but not the cause of that relationship; still we have no right to suppose that, since the efficient cause is not explicitly described as different from the Ideas in these passages, Plato meant to identify God and the Idea of Good.

So, in the attempt to reconcile our passage with the doctrine of Ideas, scholars have, on the one hand, degraded the Ideas to concepts or thoughts of God and on the other have robbed the Platonic metaphysics of its efficient cause by merging God with the Ideal World or with one supreme Idea. Either course not only can find no support of evidence in Plato's writings but is flatly contradicted by explicit passages in the dialogues. It were better then to treat this one passage which is at odds with all others in the fashion of Pansch who says,²⁰ "Occurrit, ut videtur, quasi ex improviso Platoni Deum Idearum auctorem appellare." Zeller, too, just before betraying his true explanation and identifying God with the "höchste Idee,"²¹ argues that the troublesome phrase does not mean that God made the Idea of Bed but is merely a popular way of saying that man did *not* make it. Zeller supports his point by the fact that Aristotle speaks of God as a *Maker*,²² although elsewhere he denies that the Divinity is the Creator in the usual sense. But in such passages Aristotle uses the vulgar terminology in a casual way in no close connection with his argument, whereas in our passage

¹⁹ *Laws* 891-99 and for the Ideas, *Laws* 965 B-966 A. Cf. 965 C: τὸ πρὸς μίαν ἰδέαν ἐκ τῶν πολλῶν καὶ ἀνομοίων δυνατόν εἶναι βλέπειν with *Phaedrus* 249 B-C: ἐκ πολλῶν ἰδὲν αἰσθήσεων εἰς ἓν λογισμῷ συναυρούμενον. τοῦτο δ' ἐστὶν ἀνάμνησις κτλ.

²⁰ Pansch: *De Deo Platonis*, p. 45 (quoted by Adam on *Rep.* 597 B).

²¹ Zeller, loc. cit.

²² Cf. esp. *De Caelo* I 4 and Zeller's references loc. cit.

Plato introduces the suggestion as a question and affirms it with a forceful answer. Consequently, even though the phraseology is merely popular, and even though an interlocutor might be expected to understand it in this popular sense, it is inconceivable that Plato should have been unaware that the statement directly contradicts all the rest of his writings, and he certainly must have instinctively felt it to be inconsistent with his attitude toward the Divinity as well as toward the Ideas.²³ But if we admit that the contradiction was evident to him—and we should be setting up a dangerous canon of criticism in supposing that the author of any text was unaware of the meaning of his words—it follows necessarily that it was wilfully set down. Our business is not to twist the meaning of this passage to fit the words of the *Timaeus* or to misinterpret the other statements of the Theory of Ideas to make a place for this passage, but to admit the contradiction and to try to understand the purpose for which Plato introduced it.

The purpose of the first part of the tenth book is the final conviction of the mimetic arts, and the first stage in this conviction is the proof that the object of that art is twice removed from Truth as the artist is twice removed from the King of the World. Adam recognized that Plato chose examples of artificial rather than natural objects for this formal reason, that "if he had chosen a mountain, it would have been difficult to specify the middle term."²⁴ But there would have been the greater embarrassment of admitting that in creating the mountain God would have been copying an Idea and so would have been in the same rank as the carpenter. The result would have been the relative exaltation of the mimetic artist at the expense of God, for not only would God have become an imitator also, but the creation of the poet and painter would be a direct imitation of the handiwork of God. This is avoided by the choice of an artificial object for the example used; but the choice of example alone was not enough to accomplish the desired result. God must in no way be obnoxious to the charge which is brought

²³ Plato's acumen was capable of laying bare even the difficulty inherent in the doctrine that God looks on the Ideas as a model for the creation of the world. Cf. *Parmenides* 134 D-E, and *Sophist* 248 D-249 D where the paradox of an eternal intelligence or of pure Being which is at the same time active is discussed.

²⁴ Adam, *op. cit.*, p. 387.

against the poet; and at the same time God must be brought into the schematic classification for the sake of symmetry. For if the painted bed is twice removed from the Truth which is the Idea, the painter must be twice removed from a Being which stands to the carpenter as the carpenter to the painter; this Being must be God; but as the painter is second from the King by reason of the removal of his work from the Idea, the King must stand in some relationship to that Idea. He must not be an imitator of it or the whole scheme collapses; there is nothing to do but make Him Creator of the Idea as the carpenter is the creator of the bed. If it be objected that Plato would not have contradicted his own doctrine of God's relationship to the Ideas, or that, even if he had been willing to do so for the sake of the argument, he could not hope that his readers would fail to see the contradiction, I retort that it is not reasonable to suppose that Plato did not remember that an opponent could overthrow the entire classification by pointing out the painter's ability to imitate a natural object instead of an artificial one or the poet's ability to copy the Ideas of justice, beauty, and goodness just as a carpenter copies the Idea of Bed, and that despite the fragility of the scheme he thought it worth while elaborating. Here it is only because he desires to degrade the artist as an imitator that he so carefully avoids ascribing any imitative activity to God; but that he more naturally thought of the action of the efficient cause in the language of this metaphor we are assured not merely by the consistent terminology of the *Timaeus* but by another schematic classification in the *Sophist*²² in which the concept of creation is divided into human and divine, and each of these sections is cut cross-wise to divide the art concerned with making objects and the art concerned with making imitations. This passage is of importance to us not only because it explicitly assigns an imitative function to God but because it implicitly denies that He created the Ideas, for the divisions are exhaustive and in the section devoted to the objects of Divine creation the examples given are plants, animals, minerals, fire, water, and the "cognate elements."

For those who may be shocked to find Plato willing to play

²² *Soph.* 265 A-266 D.

perversely with the fundamental concepts of his metaphysics and the axioms of his faith it will be enlightening to glance at a passage in the *Theaetetus*²⁶ where he speaks of the ruin which will overtake those who do not observe that there are two patterns in the world of true reality, one of the Divinity and one of that which has nothing of the Divine in it. It would be as absurd to interpret this to mean that God and Godlessness were two Ideas in the Ideal World as to make God and the Idea of Good the same. This sentence uses the language of the Ideal theory, but it does not refer to the Ideas as a metaphysical doctrine. It is rather an extension of the metaphysical doctrine to what Professor Shorey has called "a realistic way of speaking of the universal," and the passage is parallel to the remark made in the *Republic*²⁷ about the ideal city: "Perhaps it is laid up as a model in heaven for him who desires to behold and found himself as a polity when he beholds it." In both these passages the Ideal World as a Whole rather than a single Idea is meant, and the "pattern of that which has nothing of the Divine in it" is a rhetorical way of speaking of the privation of this "heaven". So Plato could make poetical or rhetorical use of his most cherished and most serious beliefs.

Is the argument against the mimetic arts, then, merely skillful rhetoric, and does the fact that Plato never believed God to be the Creator of the Ideas vitiate his criticism of the poet and painter? I think that the argument is, on the contrary, sound; the opportunistic shiftings are, as usual, not connected with the argument but simply a method of forestalling impertinent objections which would require lengthy digressions to refute. It is certainly true that painter and poet are concerned most frequently with shadows of shadows; and to the contention that they can also fix their mental vision on the Ideas and draw on other souls to see that blessed valley Plato would have said that he was not banishing the poet-that-might-be but the poet-that-is and would have pointed to the conclusion of his criticism,²⁸ so soon as poetry can be proved useful to human life we shall admit it into our state but not before, for the stake is high, and it is not well to disregard justice for anything—even poetry.

²⁶ *Theaet.* 176 E.

²⁷ *Rep.* 592 B.

²⁸ *Rep.* 607 B-608 C.

It would have been easy enough to prove that the mimetic arts were far from the truth, mere windy shadows, without making God the creator of the Ideas; but it would have involved a long argument to show that God's imitation of the Ideas is of a character entirely different from the imitation of the workman and the artist, an argument unrelated to the purpose of the passage and for that reason avoided by Plato in his proper and customary fashion.

PARMENIDES AND THE *PARMENIDES* OF PLATO.

[The antinomies of the *Parmenides* were composed for the purpose of showing that the Eleatic dialectic of Zeno when applied to the monistic *Being* of Parmenides produces the same paradoxes as when used against pluralism. It is demonstrated that the second part of the dialogue is formally an elaborate parody of the poem of Parmenides and methodically a parody of the logic-chopping of Zeno. By this means the psychological purpose of the dialogue is elucidated, the unity of the dialogue is made evident, and its relationship to the *Sophist* is established.]

Of the numberless problems which commentators have found in the *Parmenides* of Plato the root has been the relationship of the second part of the dialogue to the first, for the two parts seem offhand to be connected only by the arbitrary decision of Parmenides to give an exhibition of dialectical research. More particularly scholars have fretted because in the first part of the dialogue Parmenides advances certain objections to the theory of Ideas which Socrates has presented, and these objections Socrates accepts with the result that Plato seems to admit their cogency. The long history of attempts to explain this shocking fact I shall not repeat here; the most ambitious of such attempts was Henry Jackson's reconstruction of the history of Plato's development which has had a vigorous and malign influence on Platonic studies in spite of the prompt and complete refutation of it given by Paul Shorey.¹ It is, however, serviceable to notice the method Jackson used in his research as far as that method can be followed in his writing, for in the method lies the reason for the results. The problem which he found in the text of the *Parmenides* he resolved by a subtle manipulation of that text and thereafter he sought to explain the dialogues related to the *Parmenides* by means of the theory he had evolved from the *Parmenides* itself, torturing them into a semblance of consistency with the solution he had already devised. I believe that it is necessary for us to examine certain of the dialogues which bear upon the *Parmenides* before we attempt to explain the *Parmenides* itself.

In the *Sophist* a serious investigation is made into the problem of predication, which turns upon the meaning of *Being* and

¹ *Recent Platonism in England* in A. J. P. IX, 1888.

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non-Being. The Eleatic Stranger first taking up a quotation from the poem of Parmenides demonstrates in traditional Parmenidean style that *non-Being* can not be the object of thought or speech.³ But he discovers in the process that this is a dangerous saying, for "*Non-Being* reduces its opponent to such helplessness that, whenever he attempts to refute it, it forces him in his very demonstration to contradict himself on the subject."⁴ The reason for this is that in the very act of saying that *Non-Being* cannot partake of unity or plurality, he has predicated unity of it, for he has uttered the term "*Non-Being*".⁵ Accordingly the Stranger decides that he must "put to the torture the doctrine of his father Parmenides,"⁶ and this he does by an examination of the concept of *Being*. His critique of those who say $\epsilon\iota\ \tau\acute{o}\ \pi\acute{\alpha}\nu$ I must briefly summarize.⁷

(1) Are *Being* and *Unity* two names for the same thing? To say there are two names when there is only one *Being* is absurd; even to say there is a name is meaningless, for if the name is other than the thing named, there are two things; but, if the name and the thing named be identified, the name is either the name of nothing or of itself, i. e. of a name. (Moreover, *Unity* is predicable of one thing only, but *Unity* is predicable of the name—if there be a name; in which case there would be two unities.⁸)

(2) If, as Parmenides says, *Being* is a totality, it has parts. As a whole having parts it may be a unit as partaking of *Unity*, but it cannot be *Unity* for *Unity* is without parts. If it is one by participation, it (*Being*) is distinct from *Unity*, and there arises a plurality of elements. If, to avoid this, we say *Being* is not a whole, though Totality exists, there is existence outside of *Being* and a plurality again. If totality does not exist, *Being*

³ Sophist, 237A-238C.

⁴ Soph., 238D.

⁵ Soph., 238E.

⁶ Soph., 241D.

⁷ Soph., 244B-245E.

⁸ At 244D I would read $\kappa\alpha\iota\ \tau\acute{o}\ \epsilon\iota\ \gamma\epsilon\ \epsilon\iota\delta\epsilon\iota\ \delta\epsilon\ \mu\acute{\alpha}\lambda\lambda\omicron\nu\ \kappa\alpha\iota\ \tau\omicron\upsilon\ \epsilon\upsilon\acute{\nu}\omicron\mu\alpha\tau\omicron\varsigma\ \alpha\delta\ \tau\acute{o}\ \epsilon\iota\ \delta\epsilon$ "And the result will be that *Unity* is predicable of one thing only and on the other hand *Unity* is predicable of the name." The consequence of which is that, if they allow a name to exist, nothing can exist save the name, for otherwise there will be two *Unities*.

is still plurality (for *Being* is not, then, a whole) ; and it cannot have arisen nor can it exist, for nothing is completed but as a whole. Nor can it have number, for whatever number it has, it has as a whole or sum.

This section of the discussion is closed with the remark, "For a person who says that *Being* is some two things or only one, ten thousand other problems, each one comprising endless difficulties, will appear. . . . However, though we have not examined all the people who quibble about *Being* and *non-Being*,⁹ this is enough."

Thereafter there is an examination of "men who give other accounts" of *Being*, materialists and those who claim that true *Being* is immaterial and intelligible. But the purpose of the whole investigation is given explicitly by the Stranger in the words "in order that from every point of view we may see that it is no easier to say what *Being* is than what *Non-Being* is."¹⁰ The conclusion of the whole investigation is that *Non-Being* in a sense *exists* and in a sense *Being* does *not exist* exactly in proportion to the existence of *Otherness*.¹⁰ This is the germ of the entire dialogue. The *Theaetetus* in attempting to define knowledge used a negative approach, starting from opinion, and became entangled in *Non-Being* which, it was found, lay at the basis of false opinion. This is instructive for the understanding of Plato's apparent perversity of method, for in the *Sophist*, in attempting to define an *εἶδωλον*, i. e. some thing like to what is real but in itself unreal, he proceeds to the discussion of *Being*. If Heraclitus and his followers spent their time in showing the absurdity of a congealed *Being* and Zeno directed the Eleatic defence to the demonstration of the absurdity of *Non-Being*, Plato means to combine the negative arguments of both sides in these dialogues which form a great "Apologia pro doctrina sua" on ontological and epistemological grounds. If in a sense the negative arguments of both sides are true, there is need of

⁹ This phrase does not divide the schools meant (Eleatics, Heracliteans, etc.) into two groups as Campbell supposes, for both Eleatics and Heracliteans (and these for Plato subsumed under themselves the minor schools, cf. his remarks on Empedocles Soph. 242D) in speaking of the nature of *Being* felt it necessary to comment on *Non-Being*.

¹⁰ Soph., 246A.

¹⁰ Soph., 256D-257A.

a reconciliation of the two doctrines which split the world apart; and this, he means, is to be found in his own metaphysics which combines the irrefutable parts of the positive doctrine of both schools and stands on a more reasonable ontological basis.

The whole tangle of paradoxes is swept away, then, by the assertion that *Non-Being* does exist, for although it is impossible to think of *Non-Being* apart from *Being* it is no easier to conceive of *Being* without its complementary opposite. But before this conclusion is reached there is a lengthy examination of the champions of immaterial existence,¹¹ the first part of which demonstrates the necessity of a communion of opposites in their "pure Being," and shows that the conception of the existence which they sponsor is self-contradictory because it makes no provision for such a communion. It is from this criticism that the Stranger proceeds to set forth the doctrine of the communion of ideas and of the complementary existence of *Being* and *non-Being*. The conclusion of the discussion amounts to a complete denunciation of Parmenides. We have gone far beyond disobeying his express command, says the Stranger,¹² for we have not only spoken of *non-Being* and searched for it but have proved that it exists and have defined it. Now to go about trying to produce contradiction in argument is the act of a child who is just feeling his power, and to attempt to separate "the All" from everything is the unseemly action of an unlearned and unphilosophical person. This amounts to calling Parmenides the fountain-head of all Sophistry, for as the sophist is *ἀντιλογικός*, Parmenides, who by his dictum of *Non-Being* gave rise to all these senseless antinomies, is the most *ἀντιλογικός* of all.

At the beginning of the *Philebus*,¹³ too, Socrates comments upon the paradoxes which play about the concepts of *Unity* and *Plurality* ascribing the difficulty to the inherent weakness of human understanding and remarking that the trouble is not new and will not ever cease. He recognizes the difficulties which are caused by the problem in the theory of Ideas, but concludes that by a systematic dialectic coupled with a persistent faith in searching for the Idea of each thing we may avoid the pitfalls of eristic.

¹¹ Soph., 248A-258C.

¹² Soph., 258C-259E.

¹³ Phileb., 14C-17A.

This eristic is pointedly attributed in the *Phaedrus*¹⁴ to Zeno whom Socrates there calls "the Eleatic Palamedes," and his description of the effect of this process, "the result is that to his audience the same things seem to be like and unlike, one and many, at rest and, on the other hand, in motion," exactly fits the second part of the *Parmenides*. This part of the dialogue is composed of eight divisions¹⁵ which are meant to exhaust the consequences of the complementary propositions, the *One* is, and the *One* is not. In accordance with his previous formula¹⁶ Parmenides draws the conclusions which follow from the existence of the *One* and the non-existence of the *One*, first in respect to the *One* itself, then in respect to what is other than the *One*. But each of these four investigations falls into two contradictory sections, so that the results reached are: A—If the *One* is, then (1) The *One* is nothing, (2) The *One* is everything, (3) The others are multifarious and self-contradictory, (4) The others are nothing and the *One* is everything; B—If the *One* is not, then (1) The non-existent *One* is multifarious and self-contradictory, (2) the non-existent *One* is nothing, (3) the others are other than one another, are multifarious, and only apparent, (4) The others are nothing.¹⁷ This result is accomplished by a systematic abuse of *εἶναι*,¹⁸ the meaning being swung from the copulative to the existential and stress being put now on the exclusive and again on the extended meaning of the word.¹⁹ The mechanism of fallacy is precisely the same in the section I have labeled B as in A, so that we may summarily disregard all explanations of the dialogue which are

¹⁴ *Phaedrus*, 261D.

¹⁵ The passage 155E-157B is really a critique of the first two divisions. It is to be considered hereafter.

¹⁶ 135E-136A:—*μή μόνον εἰ ἔστιν ἕκαστον ὑποτιθέμενον σκοπεῖν τὰ συμβαίοντα ἐκ τῆς ὑποθέσεως ἀλλὰ καὶ εἰ μὴ ἔστι τὸ αὐτὸ ταῦτα ὑποτίθεσθαι.*

¹⁷ A1 = 137C — 142B, A2 = 142B — 155E, A3 = 157B — 159B, A4 = 159B — 160B, B1 = 160B — 163B, B2 = 163B — 164B, B3 = 164B — 165E, B4 = 165E — *fin.*

¹⁸ There are other sources of fallacy which appear sporadically, e. g. the juggling of *ἕτερον* and *ἄλλον* in 164B ff.

¹⁹ *εἶναι* in the copulative sense in A1, 4, B2, 4, in the existential sense in A2, 3, B1, 3. The results of A1 correspond to those of B2; and those of A2 to those of B1; those of A4 to those of B4; and those of A3 almost to those of B3, though in the last case it is admitted that the others only appear to have the qualities assigned to them.

based on the supposition that this section contains the key to the argument, a defense of the existence of the *One*. In like manner we are justified in rejecting Henry Jackson's notion that A2 and A3 are meant to present Plato's later theory of the Ideas.²⁰ These sections are based on the same fallacies as are B2 and B3.

Returning to the investigation of the *Sophist* we find that these paradoxes are exactly paralleled there, though in shorter compass. In the examination of *Non-Being* ²¹ B2 is paralleled by *Sophist* 237C-E and B1 by *Sophist* 238B-C, while B3 and B4 are reproduced by *Sophist* 240A-C where the Sophist defends himself by showing that if *Being* is not, *ἄλλα* which are *other* only seem to be *other* but really *are not*. In the passage concerning *Being*, *Sophist* 244C-D parallels A1, *Sophist* 244E-245A amounts to A2, and *Sophist* 245B-D matches A3 and A4.²²

The purpose of these paradoxes in the *Sophist* is clear from Plato's own words, and the result of them is the formulation of a method of predication on the basis of the explanation of *non-Being* as differentiation. Since the *Parmenides* develops the same paradoxes in the same way, it would be reasonable to suppose that the purpose of the demonstration is the same. However, the resolution of the difficulty is not given in the *Parmenides*, which fact may lead careless readers to conclude that Plato thought such reasoning valid when he wrote that dialogue and only later, seeing the fallacies and explanations of them, wrote the *Sophist* as an answer to his previous demonstration. I cannot believe that Plato "thought with his pen" as this explanation supposes. Moreover, it has been abundantly proved that Plato knew the nature and cause of these fallacies before he wrote the *Parmenides*.²³ But, in addition, he has not failed to give a hint of the true solution in the *Parmenides* itself.

²⁰ Journal of Philology XI, page 330.

²¹ Plato treats *δὲ* and *ἐν* as synonyms in the Parmenidean sense. Whether the Eleatic doctrine was exactly so or not, Plato certainly took it in this sense. Cf. Theaet. 180E, Soph. 242D, and Proclus, In Parmenid. V (Cousin, p. 1032, lines 35-40) on Plato's interpretation.

²² This section of the *Sophist* shows the intimate connection of A3 with A1 and of A4 with A2 for it implies the latter conclusions simply by stressing the former, of which they are merely the reverse.

²³ Cf. Paul Shorey, Unity of Plato's Thought, p. 67 note.

The first two sections of that dialogue, A1 and A2, develop, on the basis of the arguments used by the Eleatics to prove the notion of *non-Being* self-contradictory, the same inconsistencies in the notion of pure *Being*; there follows a section²⁴ which maintains that on the basis of the preceding arguments it is necessary that in a sense the *One* must partake of *Being* and not partake of it, hence that the *One* will become and perish, and that this means that "when it becomes *One* it perishes as many and when it becomes many it perishes as *One*." Although this hint is not developed into the doctrine of the *Sophist*, it is obviously the same thing, and, as if to point his readers still more clearly to the clue of the trouble, in B1, while developing the consequences of the proposition, the *One* is not, he says, "So, since *Being* must have a share in *non-Being* and *non-Being* must have a share in *Being*, it is necessary for the *One*, since it is not, to have a share in *Being* in order that it may *not be*." In consequence of this we must be sure that the antinomies of the *Parmenides* are meant to serve the same purpose as those of the *Sophist*, i. e., to demonstrate that the hypothesis of simple *Being* leads to the same contradictions as does that of *non-Being*, that this fact should once for all be recognized in order that these childish squabbles between *Being* and *non-Being* may stop, and that Plato is well aware at the time of this dialogue what the answer to the difficulty is. To ask why he did not develop that answer is, in the phrase of Professor Shorey, to ask why he did not write the *Sophist* instead of the *Parmenides*. If we can see somewhat more clearly the artistic motive of this dialogue, we shall see why even the hints to the answer which are given are due to Plato's care in guiding his reader. Had he been less concerned for his audience, he might well have omitted these guide-posts which have been so carelessly neglected by those they were meant to aid.

In the two pages²⁵ which introduce the demonstration of *Parmenides* we find certain definite indications of the meaning which Plato desired to convey by the last part of the dialogue. The preceding debate has ended without tangible result, and *Parmenides* advises *Socrates* that a mere impulse toward philosophy will not carry him far unless, in his youth, he exercises himself in that conversation which is considered useless by most

²⁴ *Parm.*, 155E-157B.

²⁵ 135C-137C.

people. This is the process which is later demonstrated; so that we may understand it to be a necessary propaedeutic to the search for truth but not itself that search. And we must feel that the exercise has justified itself entirely if it has in the end made us more capable of meeting such paradoxes hereafter without being paralyzed by them. There follow, then, two prescriptions for this exercise;²⁶ first, it must be an examination of abstract intelligibles and not of phenomenal objects; second, it must be an examination of the conclusions following not only from a given hypothesis but also from the opposite of that same hypothesis. Both of these prescriptions are corrections of Zeno's method, and Parmenides implies this when he gives them.²⁷ Zeno found it easy enough to set up a plurality of objects and by arguing from the existence of a plurality to show that such an hypothesis is self-contradictory; Socrates had previously objected²⁸ to Zeno's argument that its restriction to objects of sense made it simple and not at all striking, that if a man wanted to accomplish any real feat with such arguments he should produce these paradoxes concerning abstract notions. Moreover, he had not demonstrated what conclusions would follow from the supposition that the *One* exists. This prescription, then, amounts to a criticism of the Eleatic dialectic. Plato desires to point out that the *reductio ad absurdum* of abstract notions must be carried out in the field of abstractions (i. e., that to prove by Zeno's method the absurdity of supposing material objects to be in motion is no proof at all of the absurdity of abstract motion) and that you cannot support an hypothesis by proving its opposite will lead to absurdity unless you prove also that the positive hypothesis itself will not fall into the same pit. That this applies to Zeno and his Eleatic dialectic is certain. Does Plato mean to refer it to Parmenides, too?

I have already said that the investigation of *Being* and *non-Being* in the *Sophist* begins and ends with a quotation from the poem of Parmenides and that that discussion is closed with a passage which implies that Parmenides was the father of the

²⁶ 135E-136C.

²⁷ 135D—*τίς δ' τρόπος τῆς γυμνασίας; οὗτοι ὅντιν' ἤκουσας Ζήνωνος. πλὴν τοῦτο γε κτλ.*

²⁸ 129A.

sophistical method. The quotations from the poem and the references to it are so frequent in Plato's writing that we may be sure when Plato was writing the *Parmenides* he had nothing more vividly before his mind than the poem which he mentions whenever he talks of the paradoxes of *Being*. He has told us as much at the very beginning of the dialogue. As soon as Zeno has ended his reading and Socrates has summarized it, Socrates remarks to Parmenides:²⁹ "Zeno has written the same thing as you wrote and has tried to deceive us into thinking it is something else."³⁰ In this manner Plato reminds us that the Eleatic arguments are all of a piece and that if the flaw in one be discovered the fallacy of the whole system will have been laid bare. When Zeno says that his book was not written "with the intention of keeping people in the dark as if it were doing something great" and that it was simply the outburst of "youthful contentiousness", we cannot take these to be historical explanations of the origin of Zeno's writings. Certainly his book was taken seriously by mathematicians and physicists,³¹ whatever the original purpose or the exact time of its composition may have been. But Plato had observed how the first taste of these paradoxes intoxicated young men, and he is here putting into Zeno's mouth words with which Socrates elsewhere reprimands such childish quibbling.³² We may feel pretty certain, then, that Plato believed Zeno's work was considered to be important by its author and that Zeno is here made to pass on himself judgments that were Plato's and not his own.

That Parmenides and his poem are the butt at which the second part of the dialogue is aimed is put beyond doubt by the statement he makes just before beginning,³³ when he says "Since we've decided to play a laborious game let's begin with me myself and my hypothesis."³⁴ The second part, then, is an

²⁹ Parm., 128A-B.

³⁰ Zeno does not deny this. He corrects Socrates (128B-E) on two points, however, saying that his book has no serious and cryptic meaning and that he wrote it in his youth in a spirit of contention rather than in his prime in a spirit of ambition.

³¹ Cf. *Die Grundlagenkrisis der griechischen Mathematik*, von H. Hasse und H. Scholz, S. 10 ff.; 60 f.

³² Cf. Phileb., 15D-16A.

³³ 137B.

³⁴ Plato seems to apologize for making the old man parody himself

attack on Eleaticism by the father of the school, a parody of the method used in Zeno's book, but not a parody of the form of that book. For Parmenides has said that Zeno used only half of the necessary attack and he himself proposes to examine the positive as well as the negative proposition. We should be better able to appreciate Plato's jibe at Parmenides, if we knew whether he thought the two parts of his poem formed a unified whole or not. It seems impossible to discover that; but he was certainly aware that his readers would think of the apparent contradiction between the two parts of the poem when in his parody they read of Parmenides going on at length about *non-Being* and *plurality* just as he had really described the world of opinion which he insisted was non-existent, although he had prohibited the mere mention of "that which is not." And if Plato had given an interpretation of the poem in his usual manner of interpreting poets he would probably have said: "Parmenides far surpasses his pupil Zeno, for after he had set up the hypothesis: *Being is*, he saw the necessity for examining the results not only in respect of the existing Being, which he said was *One*, but also of the non-existing many, which he said *were not*. But he was not thorough, for he did not explain what the many would be in respect of the existing many." And it is this corrected and augmented form of Parmenides' poem which is the demonstration that forms the second part of the dialogue.

The first four sections, then (A1-4), correspond to the first part of the poem, the second four (B1-4) to the second part of it. But there is nothing in the poem corresponding to A3-4 and B1-2, and this is exactly Plato's complaint and his contribution to the solution of the paradox. Moreover, by pressing the Eleatic misuse of the copula Plato shows that the first part of Parmenides' poem presents only one-half of the possible conclusions and does not even present them fully, A1 and A2 cancel each other and the statement, the *One is*, leads to the same inconsistencies into which Zeno by the same method drove the pluralists. Worse still, to accept the conclusions we must suppose an *instantaneous*, and this only pushes us to the further

by insisting that it is an action fitting only to a private company. Cf. 136D: *εἰ μὲν οὖν πλείους ἤμεν οὐκ ἂν ἄξιον ἦν δεῖσθαι*. 137A: *ἐπειδὴ αὐτοὶ ἔσμεν*.

extremity of saying (instead of "it exists and does not exist at the same time") "it neither exists nor does not exist."²⁵

In the sections A3 and A4, which constitute an examination of the nature of the *Others* on the assumption that the *One* exists, Plato's satire is most sharp against Parmenides. This is the very set of consequences which according to the Parmenides of the dialogue²⁶ should have been drawn in the first part of the poem if it had been correctly written, and the result of the reasoning is that the *Others* must be "one perfect whole consisting of parts" and, further, that each of these parts must "partake of the One."²⁷ Thereupon the *Unity* of the existing *One* is stressed; and now it appears that the *Others* have no qualities whatsoever. This conclusion is strictly in accord with Eleatic doctrine; too much so it appears. For immediately the sentence is added: "In that case if there is *One*, the *One* is all

²⁵ Höffding (*Bemerkungen über den Platonischen Dialog Parmenides*, Berlin, 1921), pp. 34-5, thinks that when Plato says τὸ ἐξαιφνης is "out of time" he means that it exists in the world of Ideas. But there is no question of the Ideas here. Plato is simply making Parmenides use against his own doctrine the kind of argument Zeno used against his opponents. But Plato outdoes Zeno, who made his opponents say ἡ εἰς τὸν φερόμενη ἵστηκεν (Arist. Phys. 239B 30), by making Parmenides say that according to his hypothesis the *One* οὐδὲ κινεῖται ἂν τότε οὐδ' ἂν σταίη. Plato's hint of the solution which we have discussed previously is given in the line οὐσίας μετέχειν ποτὲ . . . μὴ μετέχειν αὖ ποτε οὐσίας. What follows in this discussion is a parody of Zeno, whose statement that at any given time a moving object is stationary is exactly repeated (156C) ὅταν δὲ κινούμενον τε ἵσθται. [It seems probable that Plato in speaking of τὸ ἐξαιφνης is referring to such infinitesimal processes as that used by Antiphon to square the circle (cf. Diels Vorsok. frag. 13). Here the instant at which the inscribed and circumscribed polygons will coincide and so become a circle is 'out of time' because the process is infinite. It is the more fitting that Plato should put this bad mathematics, which his associate Eudoxus was replacing with his theory of proportions, into the mouth of Parmenides that by means of it he might characterize *Being* as neither existing nor not existing, since Antiphon himself was a follower of the Eleatics (cf. Diels frag. 1).]

²⁶ 136B: περὶ οὗτου ἂν δεῖ ὑποθεῖν ὡς ὄντος καὶ ὡς οὐκ ὄντος . . . δεῖ σκοπεῖν τὰ συμβαίνοντα πρὸς αὐτὸ καὶ πρὸς ἂν ἕκαστον τῶν ἄλλων κτλ.

²⁷ There is special sarcasm here in making Zeno's own method force the Eleatic theory to depend upon some kind of participation, the very doctrine which Zeno and Parmenides consider inconceivable when Socrates presents it as an element in his theory of Ideas. In 158A3-158B4 Parmenides asserts exactly what he argues against in 131A-D.

things (note πάντα not τᾶν) and is not *One*. Waddell in his commentary objects "this summing-up seems rather a *non-sequitur*". It is rather a fallacy based upon the misuse of the negative proposition which is the basis of the Eleatic paradoxes and the equivocal use of τᾶν in the singular and plural. If the demonstration is meant to be a parody, as I think it is, the reasoning is here very apt. However, Plato probably had a further reason for introducing this last, seemingly unconnected, sentence. He desires nowhere to give any countenance to the Eleatic conclusions and insists on showing that even where they seem to be partly justified if they be steadily pursued they will suddenly turn out to be the very opposite to what they seem. Here Parmenides in the course of proving his favorite thesis, the emptiness of the *Others*, tumbles into the startling conclusion that the *One* is not *One* but *Many*.

The last four sections, interpreted as a parody of the second half of the poem, take on meaning where they had none before. Parmenides is made to do exactly what he continually claimed was impossible, examine the nature of the non-existent. As in the *Sophist* Plato makes the Stranger call special attention to his disobedience of Parmenides' injunction by quoting the poem, he here makes the poet disobey himself at dizzy length. However Plato may have interpreted the second part of the poem, it doubtlessly amused him to see so much time spent on the detailed description of objects which the poet insisted all the while do not exist. In B3 and B4 Plato has hinted, however, at a correction of Parmenides' attitude to the non-existing *Others*. Since he had said that they do not exist and then had proceeded to describe them, he doubtlessly meant that they seem to exist although they do not. In the last two sections of the dialogue this is the conclusion, the *Others seem* to be many, the *Others are* nothing. But this conclusion is reached from the assumption that the *One* is not. In other words, it seems that Plato means to say: "Parmenides mistakenly came to the right conclusion concerning the *Others* by proceeding from the wrong premises." We cannot, of course, be sure that he thought this was the meaning Parmenides gave to the second part of his poem any more than we can say that Plato really believed the poem of Simonides meant what Socrates in the *Protagoras* says it

meant; but this is the interpretation he obviously chooses to present for his purpose here.²²

As in B3 and B4 Plato shows that the conclusions of Parmenides concerning the *Others* follow rather from the non-existence of the *One* than from its existence, so in B1 and B2 he shows that the characteristics attaching to *One* if it does not exist are exactly the same as those which it has if it does exist. It is worth noting that of the eight conclusions drawn in the eight sections only the last two could in any way be acceptable to the Eleatics and they presuppose the proposition that the *One* is not. The others, however closely the argument promises to draw to Parmenides, all turn out as stark denials of his theais.

But without a detailed examination of this demonstration of Parmenides, can anyone who reads the final sentence doubt that Plato meant to parody at one stroke the poem of Parmenides and the dialectical method of Zeno? "Let it be pronounced that, whether *One* exists or does not exist, it itself and those that are other than it, in relation to themselves and to one another are and are not all things in all ways and appear to be and do not appear to be." And even if Plato had not meant it, could any Athenian have missed the tragic sarcasm, could any Greek have read that sentence without a reminiscent smile at the sublimity of Parmenides and the cleverness of Zeno?

Höfding,²³ much against his will, saw that the second part of the dialogue was a criticism of the Eleatics; but he seems to have believed that it was inadvertently so. He says: "Allererst muss gesagt werden, dass das Thema für die Anwendung der neuen Methode nicht glücklich gewählt war. Es war ja doch der Platonismus, nicht der Eleatismus der untersucht werden sollte." We may, I think, proceed on the presumption that whether in the end Plato succeeded or failed he always was well aware of his purpose. So, seeing that the second part is an attack on the Eleatics, we should seek to discover why Plato attacked them and not take refuge in the subterfuge that he did

²² A3 and A4 bear this out. They cannot be meant to represent the second part of the poem, for the conclusions reached from them are that the *Others* are everything and the *Others* are nothing. They do, however, provide the companion-piece to the criticism of B3 and B4 since they say in substance, the *Others* are everything and nothing on the premise that the *One* is.

²³ *Op. cit.*, pp. 25-6.

so without knowing it. Höffding's misconception arises from two common mistakes. He believes that the subject of the demonstration is the concept of *Unity* instead of which Plato should have chosen to discuss the concept of *Identity*, and he thinks the demonstration should be a direct defense of the theory of Ideas which has been discussed in the first part of the dialogue. We have already seen that in the parallel investigation of the *Sophist* the problem is that aroused by the concepts of *Being* and *non-Being* and concerns *Unity* only in the specific Eleatic identification of *Unity* and *Being*. In the *Parmenides*, too, the antinomies rest upon the abuse of the verb 'to be', and the *One* is chosen for the demonstration only because it was the favorite thesis of Parmenides. The *One* here is practically synonymous with *Being*, and the whole implication of the introduction to the second part of the dialogue is that the same kind of results can be reached no matter what the subject of the discussion may be, if only you use the method which Parmenides is about to apply. Höffding believes that the concept of *Identity* should have been investigated because he feels that by so doing Plato might have answered the objections to the Ideas brought by Parmenides in the first part of the dialogue. We must, then, decide what the character of this part really is, and what is its relationship to the latter part. The occasion of the entire discussion is the reading of Zeno's book, and Plato could not have more clearly entitled the dialogue a discussion of the Eleatic method. Socrates introduces his theory of Ideas only as a possible explanation of the apparent paradoxes into which Zeno has been driving his pluralistic adversaries; and the attack upon Socrates' suggestion is really an attempt on the part of Parmenides to defend the validity of his pupil's reasoning. Of these objections, the first⁴⁰ is a quibble made plausible by shifting from Socrates' analogy of "the all-pervading day" to the essentially different analogy of a sail-cloth; and at the bottom of the objection lies the thesis that *Being* is indivisible. This argument is developed abstractly⁴¹ by the tacit predication of material qualities to abstract Ideas (e. g., any *part* of the *Idea* of equality would be *smaller* than the *Idea* itself and yet, by the theory, the object which has this part smaller than equality will thereby be rendered equal to something). The Ideas are, then, said to be open

⁴⁰ 131A-C.

⁴¹ 131D-E.

to the objection of an infinite regress,⁴³ an objection which depends upon debasing the Idea to the level of material objects and is due primarily to a juggling of the verb "to be". It amounts to saying that the statement "Smallness is smallness" is equivalent to the judgment "An Idea exists which has the predicate small."⁴⁴

The same objection of an infinite regression is brought against the device of "imitation of the Ideas by objects", and it is based upon the same fallacious degradation of the Ideas to the level of phenomena.⁴⁵ Upon this follows a dissertation of the impossibility of any communion between the world of Ideas and that of Phenomena. This difficulty Plato always recognized and the complete solution of it has never been found. But we should notice the aptness of its introduction here. It was a doctrine dear to the Eleatics that "Being is not more or less";⁴⁶ if, then, the Idea truly is, the phenomenal world cannot exist even as a "less real imitation" of the Ideas or as an "approximation" to them. Nor, if the phenomenal world is not, can there be any relationship between *Being* and *non-Being*. With this is linked the objection that intercommunion of Ideas still remains communion only in the world of Ideas and cannot have any connection with the phenomenal world. Here we may remember with profit that in the *Sophist* the doctrine of the communion of Ideas was set forth in conjunction with the theory of the complementary existence of *Being* and *non-Being* as a defiant answer to Parmenides. Obviously Plato felt that the two prob-

⁴³ 132A-B.

⁴⁴ This danger of the infinite regress is warded off in Republic 597C by saying "There is only One Idea of each class." There the essential difference between Ideas and material objects is explained by saying that God made the former. Elsewhere the difference is stated abstractly in the terminology used for defining the Ideas. They are (Tim. 48E) *αὐτὰ καὶ ἀπὸ κατὰ ταῦτα ἑστῶς*, (Symp. 211A) *αὐτὰ καὶ αὐτὰ μὴ ἀπὸ ἄλλου κατὰ τὸ ἑστῶς*. The ordinary epithet of an Idea *αὐτὸ ἑστῶς* (cf. e. g., Phaedo 75C) is used just for the purpose of forestalling the kind of fallacy Parmenides introduces; it says in effect that the "quality" of an Idea is the Idea itself, its subject, and not a characteristic of it, its predicate.

⁴⁵ 132D-133A. For a discussion of the fallacy in this argument, cf. A. E. Taylor's paper in *Proceedings of the Aristotelian Society* XVI N. S.

⁴⁶ Parmenides fragment VIII, lines 47-48 (Diels F. d. V.).

lems were connected and that both objections rested upon ignorance of the true nature of predication.⁴⁶ He constantly refers to the difficulty of bridging the chasm between the two worlds, but he is inclined to lay the fault to the inherent weakness of the human mind.⁴⁷ By firm faith, a knowledge of the true dialectic, and long practice he felt that man could finally cross over from the world of appearance to the world of truth.⁴⁸

There remains one more passage in the first part to examine. After Parmenides has argued against the possibility of participation, Socrates suggests that perhaps the Ideas are simply thoughts in souls.⁴⁹ Of this short shrift is made. Either everything will consist of thoughts and so will think, or, though everything is a thought, it is thoughtless. Socrates at once abandons the modified theory as unreasonable. Now this is the only place in all his writings that Plato suggests the theory which has come to be called in modern times *Idealism*, and he proposes and rejects it in twenty lines. It is obvious from this passage as well as others that he never held a theory of Ideas in the idealistic sense. Why then does he have Socrates propose such an interpretation here? It is possible that there were philosophers living at the time when Plato wrote this dialogue who did teach some such idealism; but we have no knowledge of them, and it is noteworthy that Plato does not elsewhere refer to them or their doctrine. It is more plausible to say that this is the kind of interpretation which might be given by a young man, by a student in the Academy for example, when he was being harassed with the difficulties of hypostatized Ideas. Certainly Plato here insists that when he speaks of Ideas he means them to be understood as having separate and real existence. But, I think, there is a further reason for introducing the matter at this point. The theory of Ideas as developed here into idealism would remind the reader of a hard saying of Parmenides himself: τὸ γὰρ αὐτὸ νοεῖν ἐστίν τε καὶ εἶναι.⁵⁰ Whatsoever is the true meaning of that sentence, Plato would cer-

⁴⁶ That Plato took the foundation of these objections to be the paradox of "the one and the many" he expressly says in *Philebus* 15B-C.

⁴⁷ *Charmid.* 169A, *Phileb.* 15D.

⁴⁸ *Phileb.* 16C-17A, *Sympos.* 211C, and *Parmenides* 135B-C.

⁴⁹ 132B-C.

⁵⁰ *Parmenides* frag. V (Diels F. d. V.).

tainly feel that it was the outcome of that treacherous manipulation of the copulative verb; he does not want such meanings read into his doctrine; and in this passage Socrates is warned—and with true Platonic humor by Parmenides himself—that, if he should attempt such an escape from his difficulties, he would fall into the false doctrine of the Eleatics who confuse *Being* and *Thinking*.

The first part of the dialogue then serves as an example of the way in which the Eleatics meet the answers to the paradoxes with which they defend their doctrines. Parmenides has used against Socrates arguments based on the same equivocation as are the paradoxes of Zeno's book. Instead of quoting that book which his readers might examine if they would, Plato gives an example of the same technique used against his own doctrine and uses this as the occasion for the second part, a complete parody of the Eleatic method. It is strange that the demonstration of Parmenides should ever have been taken as a serious example of Platonic dialectic. It is at best only the first step in Plato's method as the *Sophist* amply proves, for when an hypothesis is found to lead you to two inconsistent conclusions, you must examine and correct the hypothesis as Plato does in that dialogue.

Why Plato does not stop to demonstrate the fallacy in Parmenides' objections now becomes clear. He means to make these objections look as plausible as possible and then to cut the ground from under him, not by a formal rebuttal but with a demonstration of the manner in which, by the equivocal use of the verb "to be", any hypothesis—even the hypothesis of Parmenides himself—can be made to result in exactly opposite conclusions. The second part of the dialogue, for the reason that it is a parody of the Eleatic method applied to the doctrine of Parmenides—and by Parmenides himself—, is a complete answer to the objections raised in the first part. Besides, it is a horrible example set up to warn all those who are tempted to indulge in the legerdemain of *Being* and *non-Being*. The *Sophist* gives a succinct and serious analysis of this sleight-of-hand and the answer to its mystical magic; the *Parmenides* is content to set the intelligent thinking that it is not safe to use the two-edged sword of paradox in the search for truth.

lems were connected and that both objections rested upon ignorance of the true nature of predication.⁴⁶ He constantly refers to the difficulty of bridging the chasm between the two worlds, but he is inclined to lay the fault to the inherent weakness of the human mind.⁴⁷ By firm faith, a knowledge of the true dialectic, and long practice he felt that man could finally cross over from the world of appearance to the world of truth.⁴⁸

There remains one more passage in the first part to examine. After Parmenides has argued against the possibility of participation, Socrates suggests that perhaps the Ideas are simply thoughts in souls.⁴⁹ Of this short shrift is made. Either everything will consist of thoughts and so will think, or, though everything is a thought, it is thoughtless. Socrates at once abandons the modified theory as unreasonable. Now this is the only place in all his writings that Plato suggests the theory which has come to be called in modern times *Idealism*, and he proposes and rejects it in twenty lines. It is obvious from this passage as well as others that he never held a theory of Ideas in the idealistic sense. Why then does he have Socrates propose such an interpretation here? It is possible that there were philosophers living at the time when Plato wrote this dialogue who did teach some such idealism; but we have no knowledge of them, and it is noteworthy that Plato does not elsewhere refer to them or their doctrine. It is more plausible to say that this is the kind of interpretation which might be given by a young man, by a student in the Academy for example, when he was being harassed with the difficulties of hypostatized Ideas. Certainly Plato here insists that when he speaks of Ideas he means them to be understood as having separate and real existence. But, I think, there is a further reason for introducing the matter at this point. The theory of Ideas as developed here into idealism would remind the reader of a hard saying of Parmenides himself: τὸ γὰρ αὐτὸ νοεῖν ὅτιόν τε καὶ εἶναι.⁵⁰ Whatsoever is the true meaning of that sentence, Plato would cer-

⁴⁶ That Plato took the foundation of these objections to be the paradox of "the one and the many" he expressly says in *Philebus* 15B-C.

⁴⁷ *Charmid.* 169A, *Phileb.* 15D.

⁴⁸ *Phileb.* 16C-17A, *Sympos.* 211C, and *Parmenides* 135B-C.

⁴⁹ 132B-C.

⁵⁰ *Parmenides frag. V* (Diels *F. d. V.*).

tainly feel that it was the outcome of that treacherous manipulation of the copulative verb; he does not want such meanings read into his doctrine; and in this passage Socrates is warned—and with true Platonic humor by Parmenides himself—that, if he should attempt such an escape from his difficulties, he would fall into the false doctrine of the Eleatics who confuse *Being* and *Thinking*.

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THE RELATION OF THE *TIMAEUS* TO PLATO'S LATER DIALOGUES.*

For a long time now most Platonic scholars have agreed that the *Timaeus* and its sequel, the unfinished *Critias*, belong to the last group of Plato's writings, that except for the *Laws* and possibly the *Philebus* they are in fact the latest of his works. Some three years ago, however, an English scholar, Mr. G. E. L. Owen, published an article in which he professed to undermine this currently prevailing opinion and to prove that the *Timaeus* and *Critias* were designed by Plato as "the crowning work of the *Republic* group" and were composed before the group of so-called "critical dialogues," the *Parmenides*, *Theaetetus*, *Sophist*, and *Politicus*, before the *Cratylus* (which he thinks also belongs to this group), long before the *Philebus* (on the relative lateness of which he holds to the current orthodoxy), and even before the *Phaedrus* (which he would place somewhere between the *Timaeus* and "the critical group").¹ There is little

* This is the text of a lecture which was delivered at Harvard University in April of 1956. Except for the footnotes here added and one or two changes in the phrasing it is here printed exactly as it was delivered. In this form it is part of a more detailed study of the subject which the author is preparing for publication; but, taken together with the articles mentioned in the notes and one dealing with *Timaeus* 38 A 8—B 5 now published in the volume of *J. H. S.* (LXXVII [1957], Part I) dedicated to Sir David Ross, it covers what the author believes to be all the major arguments that prompted the investigation.

¹ G. E. L. Owen, "The Place of the *Timaeus* in Plato's Dialogues," *Classical Quarterly*, N.S. III = XLVII (1953), pp. 70-95. Hereafter referred to as simply "Owen."

or nothing under the sun that is entirely new in Platonic scholarship. The opinion that the *Timaeus* is one of Plato's latest works is much older than the arguments that established the modern orthodoxy in this matter—it is in fact at least as old as Plutarch;³ and Mr. Owen's arguments against it also are not so novel as he appears to have believed.⁴ Whereas such arguments had hitherto attracted little attention, however, there are clear indications that now, especially in England and among younger scholars, the case as presented by Mr. Owen is coming to be more and more widely accepted as established.⁵ This would be reason enough, it seems to me, to subject it as soon as possible to the test of an exhaustive and critical examination.

Such an examination (with all the details of which I shall not try your forbearance) shows, I believe, that Mr. Owen's arguments do not have the cogency claimed for them and do not support the conclusion to which he thinks they inevitably

³ Plutarch, *Solon*, chap. 32: Plato's work on the *Critias* was cut short by death. This may be only an inference drawn from the unfinished state of the dialogue, but it implies that Plutarch too supposed the *Timaeus* to be one of Plato's last writings.

⁴ Cf. for example F. Tocco (*Studi Italiani di Filologia Classica*, II [1894], pp. 391-469) who, like Owen, contended that the *Parmenides*, *Theaetetus*, *Sophist*, *Politicus*, and *Philebus* must all be later than the *Timaeus*. O. Apelt held that the *Timaeus* must have been written before the *Sophist* but at the beginning of Plato's latest period, long after the *Parmenides* (cf. *Platons Dialoge Timaios und Kritias* [1919], p. 20; *Platonische Aufsätze* [1912], p. 268, note 1 [first published in 1895], etc.). Even earlier D. Peipers (*Ontologia Platonica* [1883]) had placed the *Timaeus* and *Critias* immediately after the *Republic* and before the *Euthydemus* and *Cratylus* as well as before the "critical group"; Teichmüller in his writings from 1881 to 1884 placed the *Timaeus* before the *Philebus*, *Parmenides*, *Sophist*, *Politicus*, *Laws* (in that chronological order); and Susemihl (*Woch. für klass. Philologie*, I [1884], cols. 513-524; cf. his *Neue plat. Forschungen* [1898]) contended that after the *Republic* the chronological order of composition was *Timaeus*, *Critias*, *Sophist*, *Politicus*, *Parmenides*, *Philebus*, *Laws*—in which the special interest lies in the place assigned to the *Parmenides* after all the works except the *Philebus* and *Laws* and in the placing of both the *Cratylus* and the *Theaetetus* before the *Symposium*, *Phaedo*, *Republic*, and *Timaeus*. Cf. M. Schanz, *Hermes*, XXI (1886), pp. 439-459 (especially pp. 446 and 454-455).

⁵ Cf. e.g. John Gould, *The Development of Plato's Ethics* (1955), p. 202, note 3; D. W. Hamlyn, *Philosophical Quarterly*, V (1955), p. 290, note 3.

lead. It does not, of course, give positive and ineluctable proof that the *Timaeus* and *Critias* are the latest of Plato's writings except for the *Laws* or the *Laws* and the *Philebus*. The evidence at our disposal does not suffice for a rigorous demonstration of any such exact relative chronology. It does, however, in my opinion suffice to show 1) that they belong to the latest group of dialogues and so are later than the *Theaetetus* and the *Parmenides*, 2) that they *may be* and probably are later than the *Sophist* and the *Politicus*, and 3) that, even if they were in fact written before the *Sophist* and *Politicus*, Mr. Owen's arguments do not prove the fact nor would the fact make the difference that he thinks it does to the correct interpretation of Plato's thought.

The generally accepted opinion concerning the relative chronology of the *Timaeus* seemed to have been confirmed beyond reasonable doubt by the results of stylometric studies. Owen attacks the assumptions and procedure of those who have applied this method to the study of Plato's writings; and, rejecting its results, he appeals instead to a study of the clausulae in the late dialogues by L. Billig, who concluded that the rhythms occurring at the end of sentences in the *Timaeus* prove this work to have been composed earlier than the *Politicus* and what he calls "the digression" in the *Sophist*.⁵ Many of Owen's criticisms of the stylometrists are well founded, and have often been made before. The more sober practitioners of the method have themselves criticized the shortcomings of the pioneer, Campbell, and the mechanical procedure and excessive claims of Lutoslawski and of von Arnim in his later work in this field.⁶

The criterion upon which Owen relies is open to equally severe criticism, however. Not to mention the more general difficulties that have been raised with regard to the determination of prose-rhythm,⁷ Billig's procedure, which Owen adopts, based as it is upon the assumption that the final syllable is indifferent, goes counter to Aristotle's statement concerning clausulae and

⁵ *Journal of Philology*, XXXV (1920), pp. 225-256.

⁶ E. g. H. Raeder, *Platons Philosophische Entwicklung* (1906), pp. 33-44; C. Ritter, *Bursian's Jahresbericht*, CLXXXVII (1921), pp. 130-134 and 170-183.

⁷ Cf. e. g. G. Ammon, *Philol. Week.*, XL (1920), cols. 242 and 248-249.

to the evidence of Plato's own usage;⁹ and this by itself justifies the scepticism concerning Billig's statistics and his inferences from them which had been expressed more than twenty years before they were resuscitated by Owen.¹⁰ Moreover, Billig's statistics in themselves prove that his method is not a safe guide to the relative chronology of the writings. They profess to show that the clausulae of *Sophist* 236 C—260 A are approximately those of the *Politicus*, while the clausulae of the parts of the *Sophist* that precede and follow this section are akin to those of the *Timaeus*. From this Billig inferred that *Sophist* 236 C—260 A was written much later than the rest of the dialogue and was then inserted into that earlier work. But, in the first place, Plato himself clearly indicates that this so-called "digression" ends not at 260 A, as Billig's statistics require it to do, but four Stephanus pages later at 264 B,¹¹ and the references in the *Politicus*¹² to this same "digression" prove that it was from the first an integral part of the *Sophist*. In the second place, by Billig's criterion we could as easily prove that the myth of the *Politicus* must have been composed much earlier than the rest of that work, for the incidence of the supposedly late clausulae in this myth is exceeded by their incidence in the rest of this dialogue by a larger proportion than that which is taken to prove the bulk of the *Sophist* to be earlier than its "digression" and scarcely exceeds their incidence in this so-called "early" bulk of the *Sophist* itself.¹³ Furthermore, anyone who does accept Billig's statistics as proof that the *Timaeus* is earlier than the digression of the *Sophist*, should in consistency assert that

⁹ Aristotle, *Rhetoric* 1409 A 9-21; A. W. De Groot, *A Handbook of Antique Prose-Rhythm* (1918), pp. 62-64, 191, 221.

¹⁰ Cf. P. Friedländer, *Platon*, II (1930), p. 672, note 1.

¹¹ Cf. *Sophist* 264 C 1 ff., 264 D 3 ff.; and H. Bonitz, *Platonische Studien*² (1886), pp. 178-179.

¹² *Politicus* 284 B-C, 286 B-C.

¹³ According to Billig (p. 241) the clausulae supposedly favored in the late style constitute 48.8% in the rest of the *Sophist* as against 65.8% in the digression, a difference of 17%. In the *Politicus* as a whole he calculates them at 70.7%; but in the myth (268 D 8—274 E 4) I find that they constitute scarcely 52%, more than 18% below his average for the whole dialogue, 13.8% below his figure for the digression of the *Sophist*, and only 3.2% above that for the bulk of the *Sophist* excluding the digression.

the *Parmenides* in turn is earlier than the *Timaeus*, since the incidence of these clausulae in the former, whether the whole of the dialogue or only the first part is considered, is appreciably lower than it is in the *Timaeus*.¹³ To admit this, however, would cancel the significance that Owen sees in his revised chronology.

Billig is not the only scholar who has attempted to determine the relative chronology of Plato's works by means of a statistical study of prose-rhythm. Besides Kaluscha,¹⁴ to whose earlier article both Billig and Owen refer, there are the elaborate studies of A. W. De Groot,¹⁵ whose work is not mentioned by Owen. His analysis and his statistics differ from those of Billig in several significant ways; and, if his percentages of the clausulae favored and avoided are accepted as a chronological criterion, the *Timaeus* is definitely later than the *Parmenides*, almost as certainly later than the *Sophist*, and possibly later than the *Politicus*. According to this criterion, moreover, the *Critias*, of which Billig takes no account and for which De Groot gives separate percentages, would be the last of all Plato's compositions excepting just possibly Books III, V, and VI of the *Laws*. If the *Critias* was written immediately after the *Timaeus*, however, as Owen assumes it was,¹⁶ it should for the purpose of such

¹³ Billig does not consider the *Parmenides* at all; but according to Owen (p. 80, note 3) the rhythms dominant from the digression of the *Sophist* onwards total 38.1% in the first part of the *Parmenides* (my own count gives 37.5% for *Parmenides* 126 A—137 C 3) against Billig's 45.6% for the *Timaeus*. For the whole of the *Parmenides* Kaluscha's figures would yield a little less than 37% (*Wiener Studien*, XXVI [1904], p. 196). Kaluscha did in fact conclude (pp. 202-204) that, while the *Timaeus* and *Critias* antedate the *Sophist*, *Politicus*, *Philebus*, the *Phaedrus*, *Theaetetus*, and *Parmenides* belong to an earlier period in which Plato took little heed of terminal rhythm.

¹⁴ W. Kaluscha, *Wiener Studien*, XXVI (1904), pp. 191-204. His work is criticized by De Groot, *Handbook* (see note 15 *infra*), pp. 68-69, 123, 149.

¹⁵ *A Handbook of Antique Prose-Rhythm* (Groningen, 1918) and *Der antike Prosarhythmus I* (Groningen, 1921).

¹⁶ Owen, pp. 90-94. This is the prevailing opinion, and it is strongly supported by *Timaeus* 27 A-B and *Critias* 106 A-B (cf. P. Friedländer, *Platon*, II, p. 602 and L. Stefanini, *Platone*, II, p. 225, n. 1); but not even this obvious connection has gone unchallenged: cf. Wilamowitz, *Platon*, I (1920), p. 592 and II (1919), pp. 256-257; T. G. Rosenmeyer,

calculations be treated along with the *Timaeus* as a single statistical unit; and this unit, *Timaeus-Critias*, would according to De Groot's statistics be still more certainly later than the *Sophist* and the *Politicus*, not to mention the *Parmenides*, although earlier than the *Philebus* and the *Laws*.

If, then, the stylometric methods that Owen rejects have failed to prove positively that the *Timaeus* is later than the *Sophist* and *Politicus*, the statistical analysis of prose-rhythm to which he appeals has so far provided no cogent reason for believing that the *Timaeus* antedates those dialogues and has not even suggested that it was composed before the *Parmenides*.

There is one stylistic characteristic which, while it does not help to determine the relative chronology of the *Timaeus*, *Sophist*, *Politicus*, and *Philebus*, leads to the inescapable conclusion that all these works were written after the *Parmenides*. This is the incidence of hiatus, which divides all Plato's writings into two distinct groups: in one, consisting of the great majority, hiatus occurs on an average ranging from 23.90 times per page of the Didot edition in the *Phaedrus* to 45.97 times per page in the *Lysis*; in the other, comprising only the *Laws*, *Philebus*, *Timaeus*, *Critias*, *Sophist*, and *Politicus* the average ranges from 6.71 times per page in *Laws V* (5.85 in the *Laws* taken as a whole) to .44 per page in the *Politicus*.¹⁷ The variations from dialogue to dialogue within either one of these groups has no absolute chronological significance; but the difference between the lowest average in the first group and the highest in the second is so great that it must reflect a purposeful change of style on Plato's part and a change made without any gradual or tentative transition. It is perfectly clear that he made a consistent attempt to avoid hiatus in *none* of the dialogues of the first group and in *all* those of the second. So much has been admitted almost universally ever since Janell's statistics brought conclusive support to the aperçu of Blass, as it has also been

H. S. C. P., LX (1951), p. 303; F. Kluge, *De Platonis Critia* (1910), pp. 261-263.

¹⁷ Cf. W. Janell, *Jahrbücher für classische Philologie*, Supplementband XXVI (1901), pp. 265-336. For the average in the *Laws* taken as a whole cf. C. Barwick, *De Platonis Phaedri Temporibus* (1913), p. 51. If the pages of formal legislation are discounted, the average for the whole of the *Laws* is only 4.70 per page (Janell, *op. cit.*, p. 306).

admitted that the second group, which includes the *Laws*, must be later than the first, in which hiatus is not avoided.¹⁹

Owen contends, however, as he must, that this is not a reliable criterion for determining the chronological relation of the *Timaeus* to the *Theaetetus* or the *Parmenides*. His arguments are two: first, that "nearly all stylometrists" consider the *Phaedrus* to be earlier than the *Theaetetus* and the *Parmenides* although it displays as they do not "a striking rarity of hiatus"; and, second, that the *Timaeus* is "a 'conscious *tour de force* of style' where the carelessness of conversation has no place." The latter point presumably implies that Plato at any time during his life would have avoided hiatus in writing the *Timaeus*. But the *Symposium* and the *Menexenus* are equally *tours de force* of style, and in neither of them is hiatus avoided. The avoidance of it in the *Timaeus* (1.17 per page) cannot be explained by the subject-matter or the tone of the work; and that it was not just an isolated stylistic experiment which Plato then abandoned only to adopt again for good after a considerable interval is proved by his rigorous adherence to it in the immediate sequel, the *Critias* (.80 per page). The first of Owen's arguments is an *ignoratio elenchi*. No one supposes that the dialogues composed without regard to avoidance of hiatus were written in the strict order of the diminishing frequency of the phenomenon; where there is no such concern, the fluctuations of frequency would be the accidental results of other factors and so would not themselves be indicative of any chronological sequence. It is perfectly consistent, therefore, to contend on the basis of other criteria that the *Phaedrus*, in which hiatus appears on an average of 23.90 times per page, antedates other dialogues in which it appears more frequently and at the same time to hold that the great difference in respect of this stylistic

¹⁹ Among scholars who had maintained a sceptical reserve with regard to the claims of stylometry see on the criterion of hiatus O. Apelt (*Philol. Week.*, XXII [1902], cols. 321-323), B. L. Gildersleeve (*A. J. P.*, XXII [1901], pp. 348-349), M. Pohlenz (*Aus Platos Werdzeit* [1913], p. 356), and Cornford, Hackforth, and Skemp cited by Owen, p. 80, n. 7. Among others cf. especially H. Raeder (*Platons Philosophische Entwicklung* [1905], pp. 41-43), C. Ritter (*Platon*, I [1910], p. 238), J. Chevalier (*La Notion du Nécessaire chez Aristote* [1915], pp. 220-221), M. Wundt (*Zeitschrift für Philosophische Forschung*, IV [1949], pp. 32-34).

characteristic between the first group and the second implies the chronological priority of *all* the former to *any* of the latter. Only by refraining from comparison with this second group can Owen say with any show of plausibility that there is a "striking rarity of hiatus" in the *Phaedrus*.¹⁹ The incidence in this dialogue (23.90 per page) is, to be sure, lower than in any other work of the first group and only a little more than half as frequent as it is in the *Parmenides* (44.10 per page); but it is very little lower than in the *Menezenus* (28.19 per page), where its frequency struck Cicero as worthy of special remark,²⁰ and the relatively less frequent occurrence of hiatus in these two works has been convincingly explained as the incidental by-product of other stylistic characteristics which they share.²¹ What is significant, however, is the great gap between the *Phaedrus* and all the works of the second group. In the *Lysis*, where the incidence of hiatus is highest, its frequency is less than twice what it is in the *Phaedrus*, whereas in the *Phaedrus* it is more than four times what it is in the *Laws* as a whole and more than twenty times what it is in the *Timaeus*; and, taken absolutely, the difference between the incidence in the *Phaedrus* and that in any work of the second group is far greater than the difference between that in the *Phaedrus* and that in the *Symposium*, the *Republic*, the *Theaetetus*, or the *Cratylus*. It is clear that the *Phaedrus*, like the *Menezenus*, belongs to the first group, not the second. Its relatively low frequency of hiatus, which is not remotely an approximation to the Isocratean canon, does not even justify its assignment to a special position chronologically intermediate between the two groups and cer-

¹⁹ Owen borrowed the phrase from Blass (*Attische Beredsamkeit*, II², p. 458), who applied it specifically to the dialogic parts of the *Phaedrus* in comparison with the *Symposium* and the *Republic* but who proceeded immediately to stress the far greater avoidance of hiatus in the second group, a qualification concerning which Owen maintains a discreet silence.

²⁰ Cicero, *Orator*, xliv, 151.

²¹ Cf. M. Pohlenz (*Aus Platos Werdeszeit*, p. 356); A. W. De Groot (*Handbook*, pp. 75-82), and C. Barwick (*De Platonis Phaedri Temporibus*, pp. 65-66), who shows that the relatively lower frequency of hiatus in the *Phaedrus* is not to be explained as the result of a later revision by Plato, the expedient adopted from Blass by Janell (*op. cit.*, pp. 307-308) and most recently proposed again as a possibility by M. Wundt (*op. cit.*, pp. 54-55).

tainly is no argument against the validity of the inference that the difference in the incidence of hiatus between the first group of works and the second marks a chronological division between the two. So the *Parmenides*, the *Theaetetus*, the *Cratylus*, and the *Phaedrus* too, whatever their true chronological position in the first group may be, cannot be moved below that line of division but must all have been composed before any of the works in the second;²² and the *Timaeus* and *Critias*, whether earlier or later than the *Sophist*, the *Politicus*, or the *Philebus*, cannot be moved back from the second group, in which these dialogues fall, and so must have been written after the *Cratylus*, *Phaedrus*, *Theaetetus*, and *Parmenides*.

The eagerness to discover such neutral or objective criteria for determining the relative chronology of Plato's writings, which has induced so many scholars to perform the painstaking and tedious labor of counting particles, syllabic quantities, and occurrence of hiatus in all the Platonic corpus, was prompted not by disinterested curiosity in the variations of his style or in the details of his literary biography as such but by the desire to identify the definitive form of his philosophy and to explain as earlier doctrine—subsequently developed, altered, or abandoned—whatever in his other writings might appear to be at variance with this. Such is also the reason for Owen's concern with the relative chronology of the *Timaeus*. The orthodox opinion of this chronology is responsible, he believes, for what he calls the paradoxes in the interpretation of Plato's ultimate philosophy, paradoxes which he maintains can be resolved simply by revising this opinion. By proving that the *Timaeus* antedates the *Parmenides* he hopes, as he says, to "deliver our interpretation of the critical dialogues from the shadow of the *Timaeus*," that is from "the Paradigms." This "shadow" cast

²² The *Phaedrus* cannot, then, be placed among the latest works of the second group, where some scholars have recently sought to place it, e.g. E. Hoffmann (*Platon* [1950], pp. 142 and 144), O. Regenbogen (*Miscellanea Academica Berolinensia*, II, 1 [1950], pp. 198-219), D. J. Allan (*Philosophy*, XXVIII [1953], p. 365), G. J. De Vries (*Mnemosyne*, 4 Ser. VI [1953], pp. 40-41). L. Robin, who in 1908 proposed such a late position for it, afterwards withdrew this suggestion (cf. Cherniss, *Aristotle's Crit. of Plato and the Academy*, p. 426, n. 360).

by the doctrine of ideas he thinks must be dispelled "from the more sophisticated metaphysics of the *Philebus*" in order that we may "leave the profoundly important late dialogues to their own devices."²³

These phrases of Owen's have their own interest for anyone who has followed the fascinating and perplexing history of Platonic interpretation, which has been so largely a series of insistently charitable efforts on the part of western philosophers and their acolytes, each to baptize Plato in his particular faith—having shriven him first, of course, by interpreting the heresies out of his works. Now, the Analysts of Oxford have succeeded to their own satisfaction in reading the dialogues that they call "critical" as primitive essays in their own philosophical method. The author of *these* works, they feel, they could adopt as their worthy precursor, if only he could be absolved of the embarrassing doctrine of ideas that he elaborated in all its metaphysical and epistemological absurdity in the *Phaedo*, the *Symposium*, the *Republic*, and the *Phaedrus*. And can he not be shown to have absolved himself of this error? Through the mouth of Parmenides, in the first part of the dialogue named for him, Plato himself presented a whole list of crushing objections to this same doctrine of ideas and represented its champion, Socrates, as incapable of rebutting any of them. He must, then, obviously have abandoned the doctrine, which he causes to be thus criticized; and, at least in the form in which he previously held it, it must be absent from the critical dialogues, for these are admittedly later than the *Parmenides*. So in 1939 Professor Ryle could assure the readers of *Mind* that: "It has long been recognized that in the whole period which includes the writing of the *Theaetetus*, the *Sophist*, the *Politicus*, and the *Philebus*, Plato's thinking is not entirely, if at all, governed by the premisses of the Theory of Forms. He attends to the theory on occasions but he does so in a dispassionate and critical way."²⁴ Professor Ryle neglected to say by *whom* this had long been recognized; and, unfortunately for this elegant method of rescuing Plato from himself, he also forgot that the evidence which enabled him to put the dialogues mentioned in a period later than the *Parmenides* had in fact long been recognized by all who

²³ Owen, p. 95 (*sub fin.*); cf. pp. 79 and 82.

²⁴ *Mind*, XLVIII (1939), p. 315.

had gathered and tested it as proving the *Timaeus* to belong at the end of this very period. In the *Timaeus*, however, that same doctrine of ideas, which the critique of the *Parmenides* is presumed to have demolished, is presented as openly and elaborately as it ever was before and even more emphatically asserted to be true. Dr. Robinson, remembering this, could "hardly think it wise to say" (as Professor Ryle had done) "that Plato did not believe in the theory of Forms at this period"; but after this politely muted expression of disagreement he proposed a still more startling way of saving the late Plato for the Analysts and from himself. "What seems much more probable," Dr. Robinson wrote, "is that he still *thought* he believed in it, though in his active inquiries he was in fact beyond it, and it functioned as a theory to be criticized instead of as the rock of salvation it had been in his middle period."²⁵ The second part of this sentence suggests that its author had forgotten the *Timaeus* only a dozen lines after he had cited it in evidence against Professor Ryle; as to the first part, if we must resort to such an hypothesis at all, the victim of self-delusion as to what Plato believed is far less likely to have been Plato than Dr. Robinson. It is no wonder that the obvious stumbling-block of the *Timaeus* should obsess, as it has always obsessed, those who insist upon banishing the doctrine of ideas from Plato's so-called "critical period" and that now one of them should again have resorted to the simple and drastic expedient of redating the work and so purging the period of it. In order to do this, Owen had to reject the validity of the stylistic criteria by which this period itself had originally been established; but, what is more, according to the very stylistic criterion that he would substitute for those rejected the *Timaeus* ought still to be later than the *Parmenides*²⁶ and would therefore still deny the significance that he and the Analysts see in the objections to the ideas put into the mouth of Parmenides.

Even if we disregard all such stylistic criteria, however, and, contrary to the evidence of them all, allow Owen to assume that the *Timaeus* did antedate the *Parmenides*, we shall find that he has not thereby succeeded in resolving what he calls the

²⁵ Richard Robinson, *Philosophical Review*, LIX (1950), p. 19.

²⁶ See note 13 *supra*.

paradoxes in the interpretation of Plato's ultimate philosophy and that he is consequently mistaken in asserting that they have been imported by the orthodox opinion concerning the chronology of the *Timaeus*. By "paradoxes" in this allegation he presumably means contradictions attributable to erroneous interpretations of Plato's statements. For we must reckon with the possibility that Plato even in the ultimate stage of his philosophy, whatever it was, may in fact have enunciated "paradoxes" in the sense of propositions which in their logical consequences are or seem to us to be self-contradictory or inconsistent with one another; at least acquaintance with the indubitably ultimate expressions of most other philosophers ought to warn us against denying the possibility in his case. And, if by "paradoxes" is meant tenets contrary to the accepted belief of what is true, then it must be recognized that the fundamental propositions of Plato's philosophy as enunciated in almost any one of his writings are consciously and avowedly paradoxical.

I

Among these conscious paradoxes is the proposition that sensible phenomena are always involved in becoming and never really exist, whereas what really is never *becomes* but is unalterably the same and is intelligible but not sensible. With this distinction between τὸ ὂν αἰεὶ, γένεσιν δ' οὐκ ἔχον and τὸ γιγνόμενον μὲν αἰεὶ, ὂν δ' οὐδέποτε *Timaeus* begins his account of the universe.²⁷ Now, according to Owen the assumption that this doctrinal paradox was enunciated by Plato during his "critical period" involves the exegesis of that period of his thought in an inexplicable paradox of interpretation, which can be completely eliminated simply by recognizing that the *Timaeus* was written before and not after the *Theaetetus*, *Cratylus*, and *Parmenides*. For Owen maintains that the principle of the incompatibility of γένεσις and οὐσία is "the outcome of the *Republic's* muddles about existence" and that it is "exploded" in the *Theaetetus* and *Cratylus* and is "jettisoned in the *Laws* and its immediate predecessors."²⁸ Yet, if there is such a paradox of interpretation as Owen has here formulated, the device of redating the *Timaeus*

²⁷ *Timaeus* 27 D 6—28 A 4.

²⁸ Owen, pp. 85-86.

would not suffice to eliminate it. For one thing, the distinction in the *Timaeus* between *γένεσις* and *οὐσία* to which he objects is enunciated again in the *Philebus*; and, for another, the expressions which in the late dialogues he cites as evidence that Plato had renounced this distinction can all be matched by similar expressions in the works that according to Owen antedate its renunciation.

The former of these two objections to his thesis Owen in part foresaw and tried to forestall by asserting that "*Philebus* 59 A and 61 D-E are not parallels to the *Timaeus* disjunction," because according to the latter "some things change without existing," whereas the *Philebus* says not this but only that "some things exist without changing."²⁰ This defence fails, however, for in *Philebus* 59 A-B τὰ γινόμενα καὶ γερνόμενα καὶ γεγονότα (A 7-9), which constitute the phenomenal world (τὰ περὶ τὸν κόσμον τόνδε—59 A 2), are not only sharply contrasted to τὰ ὄντα αἰεί, which are exclusively identified with real existence (58 A 2-3, cf. 59 C 3-4), but it is emphatically said that none of them ever was or will be or is at any moment free from change (59 B 1-2: κατὰ ταῦτά). So the same disjunction between what *really* is and what incessantly *becomes* with which *Timaeus* begins his account is reasserted at the end of the *Philebus*, where the incessant becoming of all phenomena is described in the same terms used of it not only in such so-called "pre-critical" dialogues as the *Phaedo*²¹ but also in those very passages of the *Cratylus* and the *Theaetetus*²² in which according to Owen it is refuted. The disjunction also occurs in an earlier passage of the *Philebus* and in one of the *Sophist*, both of which are erroneously cited by Owen as evidence that Plato had renounced it. The former of these²³ is the argument that, if pleasure is always *γένεσις* and there is no *οὐσία* of it at all, it cannot be the good, for the final cause of *γένεσις*

²⁰ Owen, p. 85, note 2.

²¹ *Phaedo* 78 E 2-5, 79 A 9-10; cf. also *Symposium* 207 D 6-7; *Republic* 479 A 1-3; 585 C 3-5.

²² *Cratylus* 439 E 1-2; *Theaetetus* 152 D 7—E 1.

²³ *Philebus* 53 C 4—55 A 11 (but this argument really ends at 54 D 7; 54 E 1—55 A 11 is a subsidiary argument). On the whole passage cf. A. Diès, *Philèbe* (1941), pp. LXII-LXX and my review, *A. J. P.*, LXVIII (1947), pp. 232-233.

is *oûsia*, so that there would exist something which is the final cause of this becoming and that *oûsia*, as final cause, not the becoming of which it is the cause would have the rank of good. Owen apparently thought, as had others before him, that in the statement, *γένεσις οûσίας ἐν αὐτῇ γίγνεται*, is implied the termination of process in the existence of its subject. This is neither what is said, however, nor what could be meant, for, if it were, pleasure in coming to be would become the good and the argument would obviously reach a conclusion the opposite to that which is stated and intended. As a proof that pleasure is not the good this argument may, as Hackforth believes,²³ be meant only tentatively; but those who cite it as evidence of a change from Plato's earlier attitude towards *γένεσις* and *οûsia* strangely overlook two significant facts about it: 1) the distinction drawn here between final cause and instrumental process was employed in a similar fashion as early as the *Laches*, the *Gorgias*, and the *Lysis* (and in the *Lysis* used to prove the existence of a real entity different from particular phenomena that are merely simulacra of it);²⁴ and 2), far from rejecting the disjunction that make pleasure *γένεσις* without any *οûsia* at all, Plato at the end has Socrates reaffirm his gratitude to those from whom he professes to have heard the argument based upon it.²⁵

Nor is the disjunction disavowed in that passage of the *Sophist* in which "the friends of the ideas" are said to subscribe to it and which Owen so confidently cites in support of his thesis.²⁶ The argument of this notoriously maltreated passage is succinctly but exactly the following: The "friends of the ideas" say that the real being of these ideas, which is always unalterably the same, and not *γένεσις*, which is incessant in its variation, is the object of knowledge.²⁷ This assertion, however, implies the existence of the action of knowing and therefore of intelligence

²³ *Plato's Examination of Pleasure* (1945), pp. 105-106.

²⁴ Cf. *Laches* 185 D-E, *Gorgias* 467 C—468 C, *Lysis* 218 D—220 E (cf. 218 C 5—D 5, 220 D 8—E 4).

²⁵ *Philebus* 54 D 4-6.

²⁶ *Sophist* 248 A—249 D; Owen (p. 85, note 2 cites only 248 A—249 B). On "the friends of the ideas," introduced in 246 B 6—C 2, see Cherniss, *Aristotle's Criticism of Plato and the Academy*, I, p. 439, note 376; and on the whole argument *ibid.*, pp. 437-439.

²⁷ *Sophist* 248 A 7-13 and 246 B 7—C 2.

and life and so of soul, the requisite vehicle of both; and consequently it implies the existence of vital movement that is soul and so of real motion.³⁸ This last, of course, is the idea of κίνησις, of which the vital motion (i. e. self-motion) is the manifestation. Neither one nor the other is γένεσις, which is phenomenal becoming; the neglect of this fact has been a source of multifarious confusion and error in the interpretation not only of this passage but of all Plato's "later" philosophy.³⁹ There is in the text no hint of the existence of γένεσις and nothing to suggest that the original disjunction of γένεσις and οὐσία should be rejected or even qualified. On the contrary, the argument proceeds on the assumption that this disjunction is correct and professes to deduce from it—not its contradictory, that incessant becoming is also οὐσία, but the existence of a non-phenomenal motion which is entirely different from γένεσις and which is implied by the admitted knowability of real being. The "friends of the ideas" are asked to recognize that they overlook this when they restrict action and affection to γένεσις alone—not that they are mistaken in making the disjunction of γένεσις and οὐσία; and that this motion, the existence of which Plato thought he had here established, is entirely different from phenomenal becoming is reëmphasized by his statement in conclusion that, if there is to be knowledge, there must exist νοῦς, which cannot be immobile, and objects of νοῦς, which are in every respect unalterable.⁴⁰

What then of those expressions in the so-called critical dialogues which seem to Owen and have seemed to others before him to be incompatible with this disjunction of γένεσις and οὐσία and so to give proof that Plato had renounced it when he wrote them? In the second part of the *Parmenides* "becoming" is

³⁸ *Sophist* 248 C 11—249 B 4.

³⁹ Cf. De Strycker's comments in his review of *Aristotle's Criticism of Plato* etc., *Antiquité Classique*, XVIII (1949), p. 105, and *Aristotle's Criticism* etc., pp. 439-454.

⁴⁰ *Sophist* 249 B 5—D 5. The text of B 5-6 as printed by Burnet is correct and means: "So it turns out that no immobile thing can have intelligence of anything anywhere," i. e. the knowing subject must have mobility. Then 249 B 8—C 5 gives the second part of the conclusion: the objects of knowledge must be immobile.

defined as "participating in being,"⁴¹ and in the *Sophist* "production" as "the bringing into being of anything that formerly did not exist."⁴² The *Philebus* speaks of a *γένεσις ἐκ οὐσίας* which results in what then is called "being that has come to be" (*γεγεννημένην οὐσίαν*), one of the classes into which Socrates here divides "all the entities in the universe";⁴³ and in the *Politicus* one kind of measurement is said to be concerned with *τῆς γενέσεως ἀναγκαία οὐσία*.⁴⁴ Such expressions do seem to imply that being is the termination of becoming and that *γιγνόμενα* do exist or have *οὐσία*. Yet, if they do, they are still not evidence of a change in Plato's attitude or his renunciation of the doctrine held in the so-called "pre-critical dialogues," for those works contain expressions of the very same kind. In the *Symposium* "production" is defined in terms of the transition from not-being to being, just as it is in the *Sophist*, *Politicus*, and *Philebus*;⁴⁵ the definition of *γένεσις* in the *Parmenides* has its parallel in the statement of the *Phaedo* that anything "becomes" only by participation in the being proper to that in which it does participate;⁴⁶ and, since in the *Phaedo* immutable

⁴¹ *Parmenides* 163 D 1-2; cf. also 156 A 4—B 1 (not mentioned by Owen).

⁴² *Sophist* 219 B 4-6 (not mentioned by Owen). Cf. *Politicus* 258 E 1-2 (. . . συναποτελοῦσι τὰ γιγνόμενα ἐκ' αὐτῶν σώματα πρότερον οὐκ ὄντα) and n. b. that *ποιούμενον* and *γιγνόμενον* are identified in *Philebus* 27 A 1-2.

⁴³ *Philebus* 26 D 8, 27 B 8-9; for πάντα τὰ οὖν ὄντα ἐν τῇ παρτί cf. 23 C 4-5 (not mentioned by Owen).

⁴⁴ *Politicus* 283 D 8-9. This is not mentioned by Owen either, who, however, cites in favor of his thesis *Leves* 894 A 5-7. This passage says: "It is in the process of such change and transformation that anything becomes; but when anything abides it is really being (*ὄν*), and when anything has changed to a different state it has been utterly destroyed." Now, whatever the meaning of the highly controversial preceding sentence (894 A 2-5) to which the "such change and transformation" in this one refers, Plato certainly does not here say that *γένεσις* is *ὄντως ὄν* or that *οὐσία* is the result of *γένεσις*. He does not even say that any *γιγνόμενον* ever ceases from *γένεσις*. He simply defines *γένεσις*, *ὄντως ὄν*, and *φθέρῃ* in terms of any subject and says that a subject that abides or has completed a change is not *γιγνόμενον*. The implication of this is that a *γιγνόμενον* is not *ὄντως ὄν*, and so the passage rather tells against Owen's thesis than in favor of it.

⁴⁵ *Symposium* 205 B 8—C 1; see the references in note 42 *supra*.

⁴⁶ *Phaedo* 101 C 2-4; for the *Parmenides* see note 41 *supra*.

being and the incessant becoming of phenomena are called "two kinds of entities,"⁴¹ there can be no novel significance in the use of the phrase, "all the entities in the universe," to include the world of becoming in the *Philebus*.⁴² As to those phrases which in this section of the *Philebus* supposedly express most clearly the new attitude of the "critical period," γένεσις εἰς οὐσίαν and the resulting "being that has come to be,"⁴³ they have their counterpart in the *Timaeus* itself, where to "the indivisible and ever immutable being" is contrasted "the being that comes to be, dispersed in the corporeal sphere."⁴⁴ What is more, Timaeus solemnly asserts that being and space and becoming, all three, exist⁴⁵ and does so in explicit summation of the argument in which he has distinguished real, immutable being both from space, which always is, and from the sensible world of becoming, which, incessantly in flux, is yet said "somehow to cling to being."⁴⁶ Even the *Republic*, to whose "muddles about existence" Owen lays the blame of the disjunction of γένεσις and οὐσία, not only refers by implication to οὐσία which is constantly coming to be and passing away⁴⁷ but explicitly states that the world of becoming participates in both being and not-being and is not properly to be designated as purely and simply either.⁴⁸

So neither Owen's device of revising the chronology of the *Timaeus* nor any other hypothesis of Plato's "development" can resolve the "paradox," if such it is, for it exists within the

⁴¹ *Phaedo* 79 A 6-10; cf. 78 D 1-79 A 5 and n. b. αὐτὴ ἡ οὐσία (78 D 1), τὸ δὲ (D 4) contrasted to 78 D 10—E 5.

⁴² *Philebus* 23 C 4-5 (note 43 *supra*). For γένεσις here included cf. 25 E 3-4, 26 D 8, 27 A 11—C 1. In both *Philebus* 23 C 4-5 and *Phaedo* 79 A 6 τὰ ὅντα is probably used as a general term of reference without any philosophical significance, just as the English word "entities," by which I have rendered it, frequently is (cf. *Charmides* 175 B 3, *Gorgias* 449 D 1-2, *Phaedo* 99 D 5 and 97 D 7, and P. Shorey, *The Unity of Plato's Thought*, p. 54, note 392).

⁴³ γεγενημένη οὐσία. See references in note 43 *supra*.

⁴⁴ *Timaeus* 35 A 1-3; cf. 37 A 5-6 (οὐσίαν σκεδαστήν contrasted to ἀμίμητον) and 37 B 2-3 (τὰ γιγνόμενα contrasted to τὰ κατὰ ταῦτα ἔχοντα δέ).

⁴⁵ *Timaeus* 52 D 2-4.

⁴⁶ *Timaeus* 52 A 1—D 1.

⁴⁷ *Republic* 485 B 1-3 and Adam's note *ad loc.*, *The Republic of Plato*, II, p. 3.

⁴⁸ *Republic* 478 E 1-3, cf. 479 D 9 (τὸ μεταξὺ πλανητόν).

Timaeus itself,—and not only within it but within the *Phaedo* and the *Republic* and within the *Sophist* and the *Philebus* also. The proper questions to ask, therefore, are 1) whether Plato gives any indication that he is aware of such a paradox in his treatment of the status of *γένεσις* and 2) if he does show such awareness, whether he simply persists in asserting it or attempts in any way to account for it. The first of these questions must certainly be answered in the affirmative. That is clear even from the passages of the *Republic* just cited, where it is said that *γένεσις*, since it both is and is not, is intermediate between being pure and simple and absolute not-being⁵⁵ or participates in both and is not properly designable as either.⁵⁶ It is even more clear from the passage in the *Timaeus*, where in a single breath the sensible world of incessant flux and becoming is denied real being and is said to cling to being and so to exist.⁵⁷ This passage of the *Timaeus*, moreover, provides an answer to our second question, since it is the conclusion of a long section which purports to explain how this paradox of *γένεσις* is possible.⁵⁸

It is the more interesting that, without reference to the argument or the purpose of this section as a whole, Owen has adduced a passage near the beginning of it as positive proof of his thesis. This passage, he says,⁵⁹ makes "the lame plea that, even if we cannot say *what* any mere *γεννόμενον* is, we can describe it as *τὸ τοιοῦτον*," i. e. can describe what is perpetually becoming as "of such and such a quality"; and this very plea is defeated by arguments in both the *Theaetetus* and the *Cratylus* which prove 1) that, if *anything* in this world were perpetually changing in all respects, nothing at all, not even *τοιοῦτον*, could be said of it and 2) that the theory of perpetual change "is nonsense about *anything*." If this second conclusion were stated or implied in the *Cratylus* and *Theaetetus*, Owen's proof of his thesis would have overreached itself: he would have to assume that those

⁵⁵ *Republic* 478 D 5-7, cf. 477 A 6-7.

⁵⁶ *Republic* 478 E 1-3.

⁵⁷ *Timaeus* 52 A 1—D 4 (notes 51 and 52 *supra*).

⁵⁸ *Timaeus* 48 E 2—52 D 1.

⁵⁹ Owen, p. 85, note 6 on *Timaeus* 49 D-E. It is here too that he refers to *Cratylus* 439 D 8-9 which he calls similar to the argument of the *Theaetetus* (182 C—183 C), his interpretation of which is given on pp. 85-86.

dialogues repudiate not only the *Timaeus* but the *Philebus* as well, for towards the end of the *Philebus*, as we have seen, it is emphatically asserted that all *γινόμενα* are in perpetual change in every respect and for this reason cannot be objects of knowledge.⁶⁰ This particular embarrassment Owen is spared, however, because his interpretation of the *Cratylus* and the *Theaetetus* is in this respect mistaken. The passage of the *Theaetetus* in question states that the equation of knowledge with sensation is inconsistent with the doctrine that everything is always in motion in every respect, since sensation is then no more sensation than not sensation and so no more knowledge than not knowledge.⁶¹ This neither says nor implies that the theory of perpetual change is "nonsense about anything," nor even that it is nonsense about all phenomena; it says instead that if there were *nothing* existing but only perpetual change in every respect⁶²—a theory obviously different from that of the *Timaeus*—, then no intelligible assertion of any kind could be true or, indeed, possible.⁶³ The same distinction is still more obviously drawn in the passage of the *Cratylus* that has been cited.⁶⁴ There the status of phenomena is expressly excluded from consideration.⁶⁵ Granting that it is perpetual flux, Socrates argues that still this cannot be the status of *everything*:⁶⁶ it cannot be the status of *αὐτὸ καλόν* or of *αὐτὸ ἀγαθόν* or of any entity of this kind,⁶⁷ for, if *these* entities were perpetually changing, they could not be known⁶⁸ and, if *everything* were perpetually changing, so would knowledge itself, which would then be no more knowledge than not knowledge;⁶⁹ if therefore there is knowledge, neither the

⁶⁰ *Philebus* 59 A-B; see page 237 *supra*.

⁶¹ *Theaetetus* 182 C—183 C; n. b. 183 C 1-2: ἐπιστήμην τε αἰσθῆσιν οὐ συγχωρησόμεθα κατὰ γὰρ τὴν τοῦ πάντα κινεῖσθαι μεθόδον.

⁶² Cf. *Theaetetus* 181 D 8—182 A 1. This has been emphasized from the beginning, cf. 152 E 1, 156 A 5, 157 A 7—B 1, 157 D 8-9, 160 D 8, 180 D 5-7, 181 C 1-2.

⁶³ *Theaetetus* 183 A 4—B 5.

⁶⁴ *Cratylus* 439 C 6—440 C 1 (from which Owen has cited only 439 D 8-9 without its context [see note 59 *supra*]).

⁶⁵ *Cratylus* 439 D 3-4.

⁶⁶ *Cratylus* 439 C 2-3, 440 C 7-8 (cf. 440 A 6-7).

⁶⁷ *Cratylus* 439 C 7—D 1, D 5-6, 440 B 5-7.

⁶⁸ *Cratylus* 439 E 7—440 A 5.

⁶⁹ *Cratylus* 440 A 6—B 4.

knowing subject nor the real entities that are objects of knowledge can be in flux.¹⁰ The two passages, then, are, as Owen says, similar; but neither denies that the phenomenal world is incessant becoming as distinguished from real being. On the contrary, this is expressly granted in the *Cratylus*, which then argues that the possibility of knowledge implies entities other than the phenomenal flux, just as the *Theaetetus* argues that even the equation of sensation and knowledge would have a similar implication.¹¹

¹⁰ *Cratylus* 440 B 4—C 1.

¹¹ The parallelism of *Cratylus* 440 A 6—B 4 and *Theaetetus* 182 D 8—E 11 is obvious. When Owen proceeds to assert (p. 86) that "Plato goes on to ascribe *oḗsia* to objects of perception (185 A, C, 186 B ff.)," he misinterprets entirely the argument of *Theaetetus* 184 B—186 E. Plato, having shown that the equation of sensation and knowledge, far from being supported by the theory of universal flux, is inconsistent with it, now goes on to refute the equation "independently of the theory of flux," as Owen says; but he does so not by "ascribing *oḗsia* to the objects of perception" but by showing that sensation itself involves entities other than the phenomenal "objects of perception," whatever they are. The *oḗsia* spoken of in this passage is only the widest of the *κοινά* and for that reason is especially stressed in the argument (cf. 186 A 2-3 and 185 C 4-6 and Campbell's note, p. 162, line 6 of his edition); in regard to the question of knowledge and sensation it is no different from any of the other *κοινά* (*ὁμοιον—ἀνόμιον, ταχύν—ἕστερον, ἐν—ἀριθμός, ἄριστον—περισσότερον, καλόν—αἰσχρόν, ἀγαθόν—κακόν*, etc. [185 C 8—D 4, 186 A 5—B 1]). None of these *κοινά*, including *oḗsia*, is mediated to the soul by the senses; they are all apprehended by the soul functioning without any organ of sense and reasoning about the *παθήματα* (185 D 6—E 2, 186 A 2—B 10, 186 D 2-5, 186 E 4-5). As it is emphatically denied that *oḗsia* is "perceptible"—even in the *παθήματα*—or an object of sensation (cf. 186 D 2-5, E 2-5), it is clear that *oḗsia* is not "ascribed to the objects of perception" as such but is an "object of thought," sensation acting merely as a stimulus to this activity of the soul (cf. my *Aristotle's Criticism of Plato* etc., I, note 141 on p. 236); n. b. that even in 185 A 8-9 *ὅτι ἀμφοτέρω ἐστίν* is the result not of perception but of thought (*διανοή*, cf. 185 A 4, 185 B 7). This passage of the *Theaetetus* has a striking parallel in *Republic* 524 A-D, where Plato, concerned with explaining how "sensa" are provocative of thought, uses the same example to show that what impinges upon sense *ἀμα τοῖς ὀφθαλμοῖς ἐαυτοῖς* (*Republic* 524 D 3-4, cf. *Theaetetus* 186 B 6-7) provokes the mind to ask and answer the question *τί ποτ' ἐστίν* (*Republic* 524 C 10-11). The close parallel of *Theaetetus* 185 A 8—D 4, 186 B with *Republic* 524 A-E shows that the attitude towards sensation and the so-called "*oḗsia* of the objects of perception" in the *Theaetetus* is the same as that "already" expressed in the *Republic* (cf. 524 E 1, 525 A 1).

It is true, however, that explicitly according to the *Cratylus* and implicitly according to the *Theaetetus* what is incessantly changing cannot be designated either as "that" (*ταῦτο*) or as "of such and such a kind" (*τοιοῦτον*).¹² This would contradict *Timaeus* 49 D-E, if, as Owen assumes, it were there proposed to designate what is perpetually becoming as *τοιοῦτον*. But, as has been proved from the syntax and context of the passage, all such interpretations of it are self-refuting and incorrect.¹³ What it does say is nothing at variance with the assertions of the *Cratylus* and the *Theaetetus* but something far different, far more profound, and far more significant. It occurs, as has been said, near the beginning of the section in which Plato introduces the third factor to be assumed in accounting for the physical universe. Up to this point two had been sufficient: intelligible, immutable being, which is the model; and the copy of it, which is visible becoming. For what follows, however, a third must be assumed and explained, the "receptacle" or "medium" of all becoming.¹⁴ It is the introduction of this factor that makes a true theory of *γένεσις* possible.

The substance of what Plato now says in the controversial passage is the following:¹⁵

1) Phenomena cannot be distinctively denominated, because no part of the phenomenal flux is distinguishable from any other. Because it is impossible, by saying "this is . . .," to distinguish any phase of the flux from any other, it cannot be said of any: "this is fire" or "this is water" and so forth.

2) The distinctive names properly denominate in each case not any phase of the flux but "the such and such, whatever the correct formula may be, that is always identical throughout all of its occurrences."

3) Whenever one tries to distinguish any phase of the flux by saying "this," one always in fact designates *not* any such phase but the permanent, unchanging, and characterless re-

¹² *Cratylus* 439 D 8-9; *Theaetetus* 182 C 9—D 7. It should be observed that in *Theaetetus* 152 D 2-6 it is given as a conscious assertion of the doctrine of perpetual change itself, not as an inference from that doctrine, that nothing can be rightly called *τι* or *ἐποιοῦν τι* (D 3-4 and 6).

¹³ *A. J. P.*, LXXV (1954), pp. 113-130.

¹⁴ *Timaeus* 48 E 2—49 A 6.

¹⁵ *A. J. P.*, LXXV (1954), pp. 128-130.

ceptacle in which are constantly occurring transient and indeterminable manifestations of the determinate characteristics just mentioned.

Plato then by the use of various analogies illustrates the nature of this "receptacle" or "medium,"⁷⁶ to which he finally gives the formal designation "space."⁷⁷ What is to be identified by the formula *τὸ τοιοῦτον*, itself an abbreviation of *τὸ διὰ παντός τοιοῦτον* (i. e. "what is *always* such and such") and of the still more exact *τὸ τοιοῦτον δὲ περιφερόμενον ὁμοιον ἐκάστου πέρι καὶ συμπάντων* (i. e. "the such and such that always recurs alike in each and all cases together") is not a phase, moment, or aspect of the flux, as the *διὰ παντός* and the *δὲ περιφερόμενον ὁμοιον* are by themselves enough to prove, but is that which is manifested by coming to be in the receptacle from which again it disappears. These distinct and self-identical characteristics that enter and leave the receptacle are then called "copies" and "likenesses" of the eternal entities,⁷⁸ and in the conclusion their nature is explained as that of an "image" of intelligible reality.⁷⁹ They are, consequently, not ideas but representations of the ideas, which ideas are emphatically said not themselves to enter into anything.⁸⁰ They should not be called "qualities" either, as they are by many translators and commentators, for they are not confined to qualities (the "copies" of the ideas, fire, water, earth, air, etc. being on the same footing as the copies of all other ideas)⁸¹ and the use of *τὸ τοιοῦτον* here has nothing whatever to do with the distinction between "quality" and "substance." On the other hand, they are not the same as the transient phenomena either, for the latter are the *apparent* alterations of the receptacle induced by their continual entrance into it and exit from it.⁸² The intensity and limits of these apparent affections of the receptacle are continually changing and so are indeterminable as fire, water, or anything else. Having said that "what fire is," for example, cannot be identi-

⁷⁶ *Timaeus* 50 B—51 B.

⁷⁷ *Timaeus* 52 A 8.

⁷⁸ *Timaeus* 50 C 4-5, 51 A 2.

⁷⁹ *Timaeus* 52 C, cf. 52 A 4-7.

⁸⁰ *Timaeus* 52 A 2-3 and 52 C 5—D 1.

⁸¹ Cf. *Timaeus* 51 B 5-6 and 51 A 5-6.

⁸² *Timaeus* 50 C 3-4, 51 B 4-6, 52 D 4—E 1.

fied as "this" or "that" phase of the phenomenal flux but only as the perpetually self-identical characteristic that is the determining factor of the affection in itself indeterminable, Plato does not say or suggest either that an indeterminable phase of the flux can be called τοιοῦτον, i. e. "such as" the self-identical characteristic or that this characteristic can be called τοιοῦτον, "such as" an indeterminable phase of the flux. These self-identical characteristics are identifiable only by reference to the eternal entities of which they are "copies" or representations. Consequently, after having distinguished from the phenomenal flux the receptacle and the determinate characteristics that are manifested in it, Plato must defend his crucial assumption of the existence of eternal, intelligible entities of which these characteristics are "copies"; and this he now does succinctly in a passage²³ the argument of which, as has often been remarked,²⁴ sums up the results to which the *Theaetetus* has led. He can then assert in the conclusion to the whole section²⁵ that these characteristics are determinate in meaning by reference to the really existing, intelligible, non-spatial ideas; and, though themselves not really being, "cling to being" by their entry into space.²⁶ Their having meaning and their mode of being are both held to be implied in their nature as "images"; and the theory of space is presented as saving at once the world of becoming and the theory of its relation to being as that of image or semblance to original reality.

II

Now, as we have seen, it is chiefly in order to eliminate from Plato's mature philosophy this theory of the relation between the ideas and the world of becoming that Owen would have the *Timaeus* antedate the *Parmenides*. It is, after all, a fact that this theory is in that dialogue presented by the youthful Socrates and rejected by Parmenides, who argues that, if particulars are "likenesses" of ideas, an idea and its "likeness" must be reciprocally "like" each other and consequently the reason given

²³ *Timaeus* 51 B-E.

²⁴ Cf. C. Ritter, *Platon*, II, pp. 266-267; Cherniss, *A. J. P.*, LVII (1936), pp. 453 and 455; Ross, *Plato's Theory of Ideas*, p. 103.

²⁵ *Timaeus* 52 A-C.

²⁶ *Timaeus* 52 C.

for assuming the existence of ideas must lead to an infinite regress.⁸⁷ This argument, Owen contends,⁸⁸ Plato could not have thought fallacious⁸⁹ nor, having recognized its validity, could he have continued to use the language of original and likeness as a metaphorical description of the relation,⁹⁰ for 1) the argument itself is valid, 2) Plato never attempted to answer it, and 3) nowhere again, if the *Timaeus* be excepted, does he use the idioms of original and likeness for the relation between ideas and particulars.

The last of these three assertions is crucial to Owen's thesis, for, even should the first two be correct, if the third is not, then the criticism in the *Parmenides* is no reason for assuming that Plato composed the *Timaeus* before rather than after it, since such a chronological revision would not lift from the later dialogues what Owen calls the shadow of "paradeigmatism" and would leave Plato's attitude towards that criticism as much a question as it was before. To prove this third assertion false the quotation of a single passage will suffice: "Most people have failed to notice that, while some of the real entities naturally have certain sensible likenesses (*αἰσθηταὶ τινες ὁμοιότητες*) . . . , of the greatest and most precious entities no image (*εἰδωλον*) has been made clearly perceptible to men. . . ." This statement repeats exactly the thought and the language of the *Phaedrus*,⁹¹ where the "most precious entities that have no clearly perceptible images" are identified as justice, wisdom, temperance, etc.;⁹² as in the *Phaedrus* and the *Timaeus*, particulars are here called "sensible likenesses" and "images" of incorporeal entities that are accessible to reason alone;⁹³ and this passage occurs in the *Politicus*,⁹⁴ a dialogue which by its

⁸⁷ *Parmenides* 132 C 12—133 A 7.

⁸⁸ Owen, pp. 82-84.

⁸⁹ Among those who have taken this position Owen attacks specifically A. E. Taylor (*The Parmenides of Plato*, p. 26 and *Philosophical Studies*, pp. 86-90 = *Proc. of Aristotelian Society*, XVI) and H. Cherniss (*Aristotle's Criticism of Plato etc.*, I, pp. 293-300).

⁹⁰ This is the position of Sir David Ross, *Plato's Theory of Ideas*, pp. 89 and 231.

⁹¹ Cf. *Phaedrus* 250 A 6—D 6, 247 D-E, 249 B 6 ff., 263 A-B.

⁹² Cf. *Phaedrus* 250 B 1-5 and 250 D.

⁹³ Cf. *Politicus* 286 A 5-7.

⁹⁴ *Politicus* 285 D 10—286 A 7.

own testimony is later than the *Sophist* and, according to Owen as well as to the "orthodox opinion," is later than the *Parmenides*. In view of this unequivocal evidence there is no need to review here other passages in the *Politicus* and the other admittedly late dialogues where this language is used and this relation is implied. Two further observations, however, should be made in this connection.

For one thing, even if these later dialogues contained no explicit example of the idioms of paradeigmatism, there would still be strong evidence against the thesis that Plato at any time abandoned the conception implied by them. There is no suggestion or rumor of such a change in the relevant ancient literature, not even in the one passage of Aristotle's *Metaphysics* so often and so uncritically used as evidence for the historical connections of the notions of "participation" and "imitation."²⁶ Aristotle himself regularly assumes that the Platonic ideas are "paradigms" and criticizes them on that express assumption even in parts of his work certainly written after Plato's death and with the latest expression of Plato's philosophy in mind.²⁷ Xenocrates defined "idea" as "paradeigmatic cause" (*αἰτία παραδειγματική*) and in so doing professed to be formulating Plato's own doctrine, surely not an "early" conception that had later been repudiated;²⁸ even Spensippus called the separately existing decad, which he substituted for the ideas, the "all-

²⁶ *Metaphysics* 987 B 11-14. The historicity of this passage is impugned by all the other evidence of Aristotle himself (cf. Chernias, *Aristotle's Criticism of Plato* etc., I, p. 109, n. 65; p. 180, n. 103; p. 193); but, if accepted at its face-value, it would imply that in the theory of ideas Plato at the very beginning substituted *μέθεξις* for *μίμησις*. Tocco had consequently to suppose that he at first substituted *μέθεξις* for *μίμησις* and later did exactly the opposite (*Studi di Filologia Classica*, II [1894], p. 465). Owen's hypothesis would require us to believe that the final stage involved still another reversal, the abandonment of *μίμησις* once again for *μέθεξις*. Such an improbable hypothesis of vacillation is uncalled for in the face of the evidence of the dialogues supported by all the other testimony, which shows that Plato at all times used both idioms as they suited the particular context.

²⁷ Cf. for example *Metaphysics* Z, 1034 A 2-3.

²⁸ Xenocrates, frag. 30 (Heinze) = Proclus, *In Parmenidem*, col. 888, 17-19 and 36-37 (Cousin²). For the rest of the definition cf. Chernias, *Aristotle's Criticism of Plato* etc., I, pp. 256-257.

perfect model" of the universe;⁹⁹ and Theophrastus testifies to the importance of the notion of "imitation" in the metaphysics of such Platonists.¹⁰⁰ Moreover, in the *Seventh Platonic Epistle* the phenomena of the world of becoming are expressly and repeatedly called "images" of the intelligible and truly existing entities.¹⁰⁰ If this passage is authentic, Plato within five or six years of his death solemnly asserted that particulars are "images" of the ideas; and, if it is not authentic, it still proves that during the generation after Plato's death this could be presented as his own statement of his genuine and ultimate doctrine.

It should also be observed, however, that neither here nor elsewhere is there any evidence for supposing "paradeigmatism" to have superseded some earlier conception of "participation" in Plato's development of his theory. A version of this thesis, which has often been maintained by modern scholars, was recently defended by Sir David Ross, who listed the idioms used in the dialogues to describe the relation between ideas and particulars, and from these statistics drew the inference that "there is a general movement away from immanence to transcendence," that is away from idioms of "participation" towards those of "paradeigmatism" and "imitation."¹⁰¹ Owen contends that Ross' list does not support his inference; and in this Owen is right, though not for the right reasons. Had the list been complete and accurate—as it is not—, Owen should have seen that it does not support his contrary thesis either, for he would have found in it such passages as those that I have cited from the *Politicus* and the *Seventh Epistle* (which Ross believes to be genuine) and these should have shown him that the redating of the *Timaeus* will not eliminate paradeigmatism from the later dialogues. What in fact the list even in its present form does prove is that to draw such conclusions as either Ross or Owen does from the comparative frequency of these different expressions is a travesty of statistical method. When, for example, in

⁹⁹ Speusippus, frag. 4, 16 (p. 54 [Lang]); cf. Cherniss, *op. cit.*, p. 259, note 169.

¹⁰⁰ Theophrastus, *Metaphysics* 5 A 25-28 (Ross and Forbes).

¹⁰⁰ *Epistle VII*, 342 B 2 (cf. 343 C 1-3) and 343 C 7 for εἰδωλον. For αὐτὸς ὁ κύκλος and αὐτὸ δὲ γινώσκον τε καὶ ἀληθὺς ἐστίν cf. 342 A 8—B 1, 342 C 2-3 and 7, 343 A 7-8; and for the generalization cf. 342 D 3-8.

¹⁰¹ *Plato's Theory of Ideas*, pp. 228-230.

the *Phaedo* the idea αὐτὸ τὸ μέγεθος is expressly distinguished as that which exists in reality from the μέγεθος that is in us,¹⁰² this evidence for the "separateness" of the ideas cannot be attenuated by a list of passages from the same dialogue in which "participation" is mentioned; and it is perverse to count as three scores for "immanence" Plato's assertion that it is irrelevant whether the causal relation of ideas to phenomena be called "presence" or "communion" or any term whatever.¹⁰³ In the *Symposium* it is said that the idea of beauty "exists eternally absolute by itself, a unity with itself, while all beautiful things participate in it in such a way that their coming to be and perishing neither increase nor diminish the idea a whit nor affect it in any way at all"¹⁰⁴ Ross counts this sentence as one score for "transcendence" and one for "immanence." It is instead clear evidence that the idioms of "participation" were felt not to involve the ideas in immanence at all but to express the complementary aspect of their "separateness." The occurrence of idioms of participation, then, is never in itself evidence that the ideas were not at the same time held to be paradigms; far from being felt as incompatible, the two kinds of idiom could even be used together to describe the single conception, as in fact they not infrequently are. In the *Parmenides* itself, even after the criticism of paradeigmatism, Parmenides speaks of "the likenesses—or whatever one calls them—in our world of those entities in which we participate . . .";¹⁰⁵ and later it became common to give as one of the three manners of "participation" that "by way of resemblance, as in the case of an image."¹⁰⁶

¹⁰² *Phaedo* 102 D 6-8 and 103 B 4-5.

¹⁰³ *Phaedo* 100 D 4-8. The impossible προσγενομένη in D 7 should either be excised or be changed to προσαγορευομένη after Wytttenbach (cf. also Burnet, *Class. Quart.*, XIV [1920], p. 135 and *Pap. Os.*, XVIII, 2181).

¹⁰⁴ *Symposium* 211 B.

¹⁰⁵ *Parmenides* 133 D 1-2, correctly construed by O. Apelt (*Platons Dialog Parmenides*, p. 63) and by J. Moreau (*Platon, Oeuvres Complètes* par L. Robin, II, p. 203), who saw that ὅν = ἐκείνον ὅν and that its antecedent is not ὁμοιώματα as most interpreters assume.

¹⁰⁶ Alexander, *Metaph.*, p. 121 (LF version); Proclus, *In Parmenidem*, col. 846, 22-24. Cf. Aristotle, *Metaphysics* 991 A 20-22 = 1079 B 24-26 (τὸ δὲ λέγειν παραδείγματα αὐτὰ εἶναι καὶ μετέχειν αὐτῶν ἄλλα . . .), *Eth. Bud.* 1217 B 9-10 (κατὰ μετοχὴν γὰρ καὶ ὁμοιότητα ἄλλα ἀγαθὰ ἐκείνης εἶναι), and frequently in later writers.

The paradeigmatism of the *Timaeus* is not, therefore, any more than is its treatment of becoming, a "paradox of interpretation," to be resolved, as Owen supposes, by assuming that the work was written before the composition of the *Parmenides*. On both scores it may safely remain in the latest group of dialogues, where both tradition and the best evidence of modern linguistic research indicate that it belongs.

In any case, Owen's redating of the *Timaeus* would not answer the question of Plato's attitude towards the objection to paradeigmatism in the *Parmenides*. Whatever Plato thought of that objection—and no matter when he wrote the *Timaeus*—, it is certain that he was not moved by it to abandon this way of describing the relation of phenomena to the ideas. That being so, it is probable that he considered the objection to be either irrelevant or invalid; and this is not less probable because he gave no direct and explicit refutation of the objection. He makes no such answer to any of Parmenides' objections, and he may have believed that the answers were implied in what he had already said of the ideas elsewhere and that his readers ought to discern this by themselves. After all, Parmenides at the end of all his objections is made to say not that these are unanswerable but that they have confounded the youthful Socrates because of his own deficiency in dialectical training.¹⁰⁷

Owen insists, however,¹⁰⁸ that to Parmenides' argument against paradeigmatism Plato made no reply because no reply is possible. Like Hardie and Ross,¹⁰⁹ he contends that the argument is valid because the relation between copy and original at least *includes* resemblance and to this extent is a symmetrical relation. Yet this symmetry of resemblance does not suffice to justify Parmenides' inference from Socrates' original statement. Socrates had suggested only that the relation of things *other than ideas* (i. e. phenomenal particulars) to ideas is that of images or likenesses to their original;¹¹⁰ and, even if an idea does resemble the phenomenon that resembles it, it still does not follow from his hypothesis that both are likenesses of a single original, for they are not *both* "other than ideas," and by

¹⁰⁷ *Parmenides* 135 C-D.

¹⁰⁸ Owen, p. 83.

¹⁰⁹ W. F. R. Hardie, *A Study in Plato*, pp. 96-97; Ross, *Plato's Theory of Ideas*, p. 89.

¹¹⁰ *Parmenides* 132 D 1-4.

hypothesis one is itself the original of which the other is a likeness. This point is explicitly emphasized in one of the Academic demonstrations of the existence of ideas as paradigms that Alexander reports from Aristotle's *De Ideis*.¹¹¹ There the conclusion is drawn only after it has been shown that none of the particulars of which a common term is predicated can be either exactly what that term signifies or the paradigm of the others,¹¹² that is: the inference that similar things are likenesses of a single original depends for its validity upon exclusion of the possibility that any of them is itself the original of which the others are likenesses. This careful formulation would have forestalled Parmenides' objection and may have been intended by its author—whether Plato or one of his associates—for this very purpose; at any rate, against the proof so formulated Aristotle in his attack on it apparently did not try to use the regress-argument of Parmenides.¹¹³

The saving restriction made explicit in this formulation is obliterated, however, by Parmenides in what is, in fact, the major premise of his argument, the proposition that *any* two things which are similar to each other must participate in one and the same thing.¹¹⁴ To this proposition Socrates is made to assent, though he might have been expected at least to demand that Parmenides express it in the terms of the new hypothesis, the very point of which is the substitution of *εἰκασθῆναι*—"to simulate" or "to resemble"—for *μετέχειν* "to participate in."

¹¹¹ Alexander, *Metaph.*, pp. 82, 11-83, 17; cf. Cherniss, *Aristotle's Criticism of Plato etc.*, I, pp. 230-232.

¹¹² Alexander, *Metaph.*, p. 83, 10-12; cf. Cherniss, *op. cit.*, pp. 278-279 and Ackrill, *Mind*, LXI (1952), pp. 108-109.

¹¹³ The objection recorded by Alexander (*Metaph.*, p. 83, 26-28) is not this regress (cf. Cherniss, *op. cit.*, p. 284).

¹¹⁴ *Parmenides* 132 D 9—E 1: τὸ δὲ ὁμοίον τῷ ὁμοίῳ . . . ἀνάγκη εἶναι τοῦ αὐτοῦ εἶδους μετέχειν. Burnet, Diès, and Cornford follow Jackson in excising *εἶδους*, though it is in all the MSS and was read by Proclus (cf. col. 915, 1 [Cousin]). Excising it would not affect the argument, but there is no reason to doubt that Plato wrote it. It is not "a premature anticipation of Parmenides' next question" but is used in the neutral sense of "thing" or "character" (cf. Cornford, *Plato and Parmenides*, p. 172, n. 1 on 149 E 7). Then in E 3-4 "that thing" (*ἐκεῖνο*) by participation in which similars are similar is identified with the idea itself of Socrates' theory (*αὐτὸ τὸ εἶδος*, cf. *Phaedo* 103 E 3 and Aristotle, *Metaphysics* 987 B 18).

Parmenides' sudden reversion to *μερίξαι* should alert the reader and may have been intended to do so. If this proposition were expressed in the idiom of the present hypothesis, it would be immediately obvious that it is unacceptable in its universality and that the argument of which it is the major premise is directed not specifically against the existence of paradeigmatic ideas but against the very notion of original and likeness in general.¹¹⁸ The shift of idiom somewhat conceals but does not alter the true scope of the argument. If valid, this argument still involves the hypothesis of paradeigmatic ideas in an infinite regress only by so involving the relation of likeness and original as such. According to it, no physical object could have a likeness, since, if it had, it and its likeness, being similar to each other, would have to be so by participation in one and the same thing, which in turn, being similar to the original object and its likeness, would along with them both have to participate in still *another* single thing and so on indefinitely.

But the shift of idiom, while it somewhat conceals or diverts attention from the true scope of the argument, all the more clearly signalizes the source of its fallaciousness, the fact that the major premise in its universality implies self-contradiction. If, as Parmenides argues, an original, *O*, and its likeness, *a*, must be similar to each other by participation of both in one and the same thing, *O*², and then *O* and *O*², its original, must be similar to each other by participation in one and the same original, *O*³, this must be true of *a* and *O*² as well: both being similar to *O* in the same respect, they must be similar to each other in that respect and must be so by participation in one and the same thing, *O*³. Consequently *a*, *O*, and *O*² must all be similar to one another by participation in *O*³ and so, *a* and *O* are similar to each other by participation in *O*³ and by *this* participation are similar to each other in the *same* respect in which, according to Parmenides' original inference, they are similar to

¹¹⁸ If any original is similar to its likeness in so far as the latter is similar to it and if any two things that are similar to each other must in that respect be likenesses of (or must resemble—*εἰκασθῆναι*) one and the same thing, there can be no such thing as a likeness of anything, since, if there were, that thing and its likeness would have both to be likenesses of another original, and this with its likenesses likenesses of still another, and so on indefinitely.

each other by participation in O^2 . That inference, however, was drawn from the premise that *any* two things similar to each other in a given respect are so similar by participation in *one and the same thing*. Consequently, O^2 and O^2 must be *one and the same thing*. Yet, if O and O^2 (and a and O^2), being similar to each other in this respect, must both participate in O^2 , then O^2 and O^2 cannot be one and the same thing, since, if they were, O^2 would participate in itself, which according to Parmenides' assumption is impossible, since, if it were possible, a and O could be similar to each other by the participation of both in the original, O , and the regress would not begin.¹¹⁶ The same contradiction results for O and O^2 , if O and each of its multiple likenesses, a, b, c , etc., must be similar to each other by participation in one and the same thing: a, b, c , etc. and O are then similar to one another by participation in O^2 , which must be identical with O inasmuch as a, b, c , etc. are similar to one another by participation in O and yet cannot be identical with O inasmuch as it is that by participation in which O is similar to a, b, c , etc.¹¹⁷

This regress argument against paradeigmatism is, therefore, *not* valid, since its major premise involves a self-contradiction. The explication of this self-contradiction reveals that if two things are similar to each other in a given respect by the participation of both in a third, then this third and each of the other two, being similar to each other in this respect, cannot

¹¹⁶ It is assumed, though not expressly stated, at 132 E 3-4 that that by participation in which similar things are similar cannot itself be one of the similar things.

¹¹⁷ In 132 D—133 A Parmenides makes no explicit mention of multiple likenesses of a single original but formulates his argument as an attack upon the relation of any single particular likeness to the idea which is supposed to be its paradigm. It is presented, however, as a refutation of Socrates' hypothesis, which is intended to explain the similarity to one another of multiple particulars, as Parmenides himself states at the beginning of the preceding version of the regress (132 A 1-4). As a refutation of Socrates' hypothesis, therefore, Parmenides' argument here in 132 D—133 A must imply the conclusion that the similarity to one another of the particulars, a, b, c , etc., cannot be accounted for on the assumption that they are all likenesses of a single original, O , since that would require each of them and O to be similar to each other by participation in O^2 . That this is not specifically stated only tends to support the suspicion that the argument was originally an argument against the possibility of the relation original-likeness in general and not against the theory of ideas as such.

be so by participation in a fourth, since this would require the third and the fourth to be and at the same time and in the same respect not to be one and the same thing. Consequently it is not true that *any* two things which are similar to each other must participate in one and the same thing. The relation of original and likeness itself proves that this proposition is not thus universally true, because, if it is true of some similars, it *cannot* be true of all. If, then, there are likenesses or images that are similar to one another by participation in one and the same thing or by resemblance to a single original (which is the hypothesis of Socrates), this and any one of the likenesses are similar to each other *not* by participation of both in one and the same thing but just by the latter's representing, simulating, or participating in the former.¹¹⁸

Parmenides in formulating his major premise universally assumes that any two things that are similar in a given respect—and so also the paradeigmatic idea and its particular likeness—must both in the same sense *have* or *share in* the character or property in respect of which they are similar. To this assumption Plato appears to call special attention when he makes Parmenides conclude his argument by saying that the infinite regress will occur “if the idea turns out to be similar to that which participates in the idea itself,”¹¹⁹ that is “to *have* the

¹¹⁸ If a is the likeness of an original, O , then by definition a and O cannot both in the same respect be likenesses of another original, O^2 . Even if O is in turn a likeness of another original, O^2 , it is still only by a 's being a likeness of O that a and O are similar to each other; and a and O^2 are then similar to each other not by both being likenesses of still another original, O^3 , but by a 's being a likeness of O and O 's being a likeness of O^2 . When Parmenides says that O participates in the same thing in which a , its likeness, participates, he reduces O to a likeness of that of which its own likeness is a likeness. If O and a are similar to each other by participating in one and the same thing, then O is not the original of which a is a likeness, not the idea that Socrates posited, but another particular likeness, the original of which is the idea in question; and this idea is similar to its likeness not by participating in that in which the likeness participates but by really being that which the likeness merely represents. If no two things can be similar to each other in this way but only by both participating in one and the same thing, then, quite apart from any theory of ideas, there can be no such thing as a likeness, image, copy, or representation of anything at all.

¹¹⁹ *Parmenides* 133 A 2-3.

same character that its participant has." The indispensability of this assumption both to this argument of Parmenides and to the preceding version of the regress, formulated as an argument against the uniqueness of each separate idea,¹²⁰ has recently been reëmphasized by Professor Vlastos.¹²¹ In his study, which has started a still-rising flood of literature, intended to clarify Plato's text but tending to whelm it with the symbols of modern logic,¹²² Vlastos contends that this, which he calls the "Self-Predication Assumption," and another, which he dubs the "full-strength Non-Identity Assumption," are tacit premises, both essential to both of Parmenides' regress-arguments; that, when these tacit premises are made explicit, it becomes obvious that they are mutually inconsistent and that therefore both versions of the regress are invalid arguments; but that Plato was never able to explicate these hidden assumptions, that he never felt sure, therefore, whether the arguments were valid or not, and that for this reason he refrained from attempting to refute them.

The "Self-Predication Assumption" (1) asserts that "if *O* is the idea of *x*, then *O* is *x*"; the "Non-Identity Assumption" (2) that "if anything is *x*, it cannot be identical with the idea of *x*." In the latter the antecedent means: "if anything has a certain character *x*"; and (1) and (2) are declared to be inconsistent on the assumption that in "*O* is *x*,"—the consequent of the former,—"*is x*" has the same meaning, that is means "has the character *x*." Now, Parmenides does indeed assume this premise (1) and assumes this meaning for it. In fact, at the end of the second version, as we have seen, he appears to call special attention to the fact that the regress depends upon the premise so understood. This alone would suggest that the implications of this "hidden premise" were not hidden to Plato and that he intentionally left them unexplicated in Parmenides' argument. This possibility Vlastos does not entertain, however.

¹²⁰ *Parmenides* 132 A 1—B 2.

¹²¹ G. Vlastos, "The Third Man Argument in the *Parmenides*," *Philos. Rev.*, LXIII (1954), pp. 319-349.

¹²² Cf. W. Sellars, *Philos. Rev.*, LXIV (1955), pp. 405-437; G. Vlastos, "A Reply to Prof. Sellars," *ibid.*, LXIV (1955), pp. 438-448; P. T. Geach, *ibid.*, LXV (1956), pp. 72-82; G. Vlastos, "A Reply to Mr. Geach," *ibid.*, LXV (1956), pp. 83-94.

On the contrary, he contends that this "Self-Predication Assumption," while never openly asserted by Plato, is nevertheless necessarily implied in his doctrine of ideas and in certain of his statements, such as "Justice is just" or "Beauty is beautiful," so that he must have assumed it without ever having been aware of it and its implications.¹²³

Such statements as these quoted by Vlastos and taken by him to imply that Justice and Beauty were assumed to *have* the characters indicated may also mean, however, that "Justice" and "just" or "Beauty" and "beautiful" are *identical*; and it can be shown that Plato was well aware of the difference between such an assertion of identity and an attribution and in this awareness consciously denied what Vlastos believes he unconsciously assumed without understanding its implications. In the second part of the *Parmenides*, for example,¹²⁴ he uses the following argument: If there are parts, since "each" signifies "one," each part must participate in Unity ($\tau\acute{o} \epsilon\nu$); but its participation in Unity implies that it is other than one, for otherwise it would not participate but would itself be one, whereas only Unity itself ($\alpha\upsilon\tau\acute{o} \tau\acute{o} \epsilon\nu$) can be one. So each part, like the whole of which it is a part, "is one" only by participating in Unity. Here Plato clearly distinguishes two meanings of "is x ," namely (1) "has the character x " and (2) "is identical with x "; assumes that whatever "is x " in one sense is not x in the other; and states that $\alpha\upsilon\tau\acute{o} \tau\acute{o} x$ and only $\alpha\upsilon\tau\acute{o} \tau\acute{o} x$ "is x " in the second sense.¹²⁵ As applied to the statements

¹²³ For such statements as those quoted Vlastos cites *Protagoras* 330 C-D, *Phaedo* 100 C 4-6, *Lysis* 217 D, and Diotima's speech in the *Symposium*; he also asserts that $\alpha\upsilon\tau\acute{o} \tau\acute{o}$ —for "the idea of x " suggests Self-Predication. Owen (p. 83, n. 4) also cites *Protagoras* 330 C-D and *Phaedo* 102 E 5 as evidence for Self-Predication in "the old theory of Forms," presumably meaning that Plato in his "later theory" abandoned it; but in the *Sophist* itself, which according to Owen represents this "later theory," there is the statement (258 B 10 ff.): $\acute{\alpha}\sigma\pi\epsilon\varsigma \tau\acute{o} \mu\acute{\epsilon}\gamma\alpha$ (i. e. $\tau\acute{o} \mu\acute{\epsilon}\gamma\alpha \alpha\upsilon\tau\acute{o}$ [cf. 258 A 1]) $\acute{\eta}\nu \mu\acute{\epsilon}\gamma\alpha \kappa\alpha\iota \tau\acute{o} \kappa\alpha\lambda\acute{o}\nu \acute{\eta}\nu \kappa\alpha\lambda\acute{o}\nu$

¹²⁴ *Parmenides* 158 A.

¹²⁵ The distinction between assertions of identity and attribution is observed elsewhere in the second part of the *Parmenides* also, e. g. at 142 B 7—C 2, 143 B 1-3 (cf. 158 B 1-2 and *Sophist* 245 B 7-8); at 149 C 5-6 it is said that the others than Unity neither are one nor participate in Unity, at 157 B 9—C 2 that they are not Unity but do participate in Unity.

quoted by Vlastos and to the doctrine of ideas generally, this is to say: "the idea of x is x " means "the idea of x and x are identical and therefore the idea of x does not 'have the character x .'"

Since Plato formulates this distinction in the second part of the *Parmenides*, it is reasonable to suppose that he was aware of it and its bearing upon the regress-arguments when he put these into the mouth of Parmenides in the first part of the dialogue. We need not rest upon this probability, however, since a passage in the tenth book of the *Republic*¹²⁶ shows that he regarded the distinction as essential to the theory of ideas. This passage is a succinct proof that the idea of every plurality is itself unique. Just because this is its purpose, the relevance to the regress in the *Parmenides* that other scholars had seen in it was denied by Ross in a sentence applauded by Vlastos as "an admirably terse refutation."¹²⁷ "To show that if there were two Ideas of bed there would have to be a third," Ross said, "does nothing to disprove the contention that, if there is one Idea of bed, related to particulars as Plato supposes, there must be a second." Whether it does or not depends, of course, upon the nature of the proof, which neither Ross nor Vlastos deigns to analyse. Plato does not, in fact, argue that there must be only one idea of κλίνη because if there were two, there would have to be a third; that of itself would not show why all three may not be ideas of κλίνη. His proof is instead that there can be only one idea of x just because the idea is ὁ ἴστω x . God himself could not create more than one idea of x , because if there were

¹²⁶ *Republic* 597 C.

¹²⁷ Ross, *Plato's Theory of Ideas*, p. 87 and pp. 230-231; Vlastos, *Philos. Rev.*, LXIII (1954), p. 348, n. 51. Owen (p. 83) also denies the relevance of the passage to *Parmenides* 132 D—133 A on the ground that in the former Plato uses not "a regress of similarities" but simply the premise of the *ἐν ἐπὶ πολλῶν*. Each step of the regress in both versions, however, is just the *ἐν ἐπὶ πολλῶν*; and this is itself an argument from the similarity of the πολλὰ to one another (cf. Alexander, *Metaph.*, pp. 84, 1-2 and 85, 3-5 and Cherniss, *Aristotle's Criticism of Plato etc.*, I, p. 233, n. 138 and pp. 294-295). As will be seen, what Plato does in the passage of the *Republic* is to show why the idea cannot be one of a plurality of similar entities—which is just what Parmenides assumes it is in the first version and seeks to prove that it is in the second—, and this is itself the reason why a "regress of similarities" does not arise.

even so many as two such entities, they would both *have* the character x and so $\delta \dot{\iota}\sigma\tau\iota\nu x$ would be neither of these but would be instead the single entity "of which they would both *have* the character."¹²⁰ Here is the same distinction between "what is x " and "what has x " that we find drawn in the second part of the *Parmenides*, where it is said that "What participates in Unity must be other than one, since otherwise it would not *participate* but would itself *be* one, whereas only Unity itself ($\alpha\upsilon\tau\acute{o}\tau\grave{o}\ \dot{\iota}\nu$) can *be* one."¹²¹ In the *Republic*, however, this distinction is expressly applied to prove that the idea of x , since it is identical with x , cannot have x as a character or property, as it necessarily would if it were one of a plurality of entities alike in "being x ," and that such entities, however "perfect" they might otherwise be, would still be "particulars" and not ideas of x ¹²² because they would "have x as a character" and therefore would not be "what x is." This passage clearly shows that, contrary to what Vlastos holds, Plato did *not* confuse the idea of x with "the perfect instance of the property which the word x connotes"; and, since he explains that $\alpha\upsilon\tau\acute{o}\tau\grave{o}\ x$, the expression most commonly used for "the idea of x ," always means $\delta \dot{\iota}\sigma\tau\iota\nu x$, "what is identical with x ,"¹²³ it denies what Ross and Vlastos assert: that this expression makes the idea of x one x among others and implies an x -ness common to it and them.¹²⁴ On the contrary, this passage of the *Republic* is clear proof that Plato consciously rejected as false this crucial assumption of *Parmenides*' regress in both its forms and held that this rejection of it was implied in the very terminology that he used to designate the ideas.

What Plato meant by the formula, "the idea is that which its particular participants *have* as a character," requires a word of explanation, since it has obviously been misunderstood by Owen and by Vlastos alike. According to Owen,¹²⁵ this formula that I have imputed to Plato did become his doctrine—but only

¹²⁰ *Republic* 597 C 7-9.

¹²¹ *Parmenides* 158 A (note 124 *supra*).

¹²² Cf. *Republic* 597 D 1-3.

¹²³ *Republic* 507 B 5-7. Cf. *Republic* 490 B 3, 532 A 7—B 1; *Phaedo* 75 C 10—D 2, 78 D 1-7; *Symposium* 211 C 7—D 1.

¹²⁴ Cf. Ross, *Plato's Theory of Ideas*, p. 88.

¹²⁵ Owen, p. 88, note 10.

after he had written the *Parmenides*. Since Owen adopts the orthodox opinion that the *Republic* antedates the *Parmenides*, he must have failed to see that the proof in Book X of the *Republic* rests upon this formula; and this he did because he interprets the formula as a denial of the "separate existence" of ideas, a change in doctrine that, as we have seen, he mistakenly ascribes to Plato in his "later, critical period." Vlastos, rightly denying such a change of doctrine but taking the formula in the same way as Owen does, denies that Plato could ever have adopted it. It would, he contends, have prevented Plato from "separating" the ideas; and to impute it to him is to fail to see "that the 'perfect reality' of the Forms is incompatible with their being the <imperfect> predicates of particulars."¹²⁴ Vlastos thus explicitly interprets the formula to mean that the ideas are *themselves* attributes or properties of particulars; but this is a complete misapprehension. As the passage in the *Republic* shows, it means that of any character or property, *x*, that a particular *has*, the *reality* is $\delta \iota \sigma \tau \iota \nu \ x$, which it could not be if it were *had* by anything and which therefore must be independent or "separate" from all manifestations of itself as a property. The formulation that Vlastos rejects and Owen accepts as a "later doctrine," then, far from being incompatible, as they both suppose it is, with the independent existence of the true realities, which we call by the conventional but somewhat misleading term "separation of the ideas," necessarily implies it in asserting that what appears "dispersed," as the *Timaeus* puts it,¹²⁵ in particularization as a property is in reality an unparticularized entity, indivisible and identical with itself, and so not a property of anything.

Whether or not Plato himself ever took the trouble to point it out to his associates, we have certain evidence to show that by some of them at least the formulation thus made explicit in this passage of the *Republic* was held to be the reason for rejecting as invalid the regress-arguments of the *Parmenides*. This is a passage of Aristotle's *Metaphysics*, the import of which has long gone unremarked, perhaps because of an old corruption in the text, which Ross in his revised edition has now removed, although by a strange inadvertence he has left unchanged and so made

¹²⁴ Vlastos, *op. cit.*, note 40.

¹²⁵ *Timaeus* 35 A 1-7, 37 A 5—B 2.

irrelevant and unintelligible his old exegetical note on the passage.¹²⁶ There Aristotle, after having tried to involve the theory of ideas in the regress by arguing that each of the ideas and its participants must *have* the same property in common if ideas and particulars are not merely unrelated homonyms,¹²⁷ recognizes as the Platonists' reply to this argument the contention that this premise of the regress is rendered invalid by their addition of $\delta \lambda\omicron\gamma\iota$ to terms designating ideas. This is the explicit application to Parmenides' regress of the formulation used in the proof of the *Republic*; and it is noteworthy that Aristotle testifies to its force when in his rejoinder to it he abstains from arguing that the idea does *have* the property its participants have, thereby silently admitting that as $\delta \lambda\omicron\gamma\iota x$ the idea cannot be treated as an "eternal particular" or a "perfect instance of x ," and attempts instead to establish a new kind of regress, based not upon the relation of the idea to its particular at all but upon the isolation of this $\delta \lambda\omicron\gamma\iota$, treated as a common predicate of all the ideas, which he contends must therefore imply a separate idea of ideality.

I take it therefore as proved not only that both versions of the regress are invalid arguments but also that when Plato put them into Parmenides' mouth he believed them to be invalid and invalid for reasons which he felt himself to have indicated satisfactorily for anyone who would compare the assumptions of these arguments with what he had already said concerning the nature of the ideas. In any case, so far as certainty can be assured by the evidence of his own writings and by that of all relevant ancient testimony, he certainly continued to the end of his life to maintain the doctrine that the ideas are paradigms or originals, of which particulars are copies, images, or representa-

¹²⁶ *Metaphysics* 1079 B 3-11. Shorey showed that in B 7 $\tau\acute{o} \delta' \epsilon\delta \lambda\omicron\gamma\iota$ must be an error for $\tau\acute{o} \delta' \delta \lambda\omicron\gamma\iota$ (*Class. Phil.*, XX [1925], pp. 271-273). This correction Ross adopted in the second edition of his translation of the *Metaphysics* (Oxford, 1928); and in the corrected reprint of his text and commentary of *Aristotle's Metaphysics* (Oxford, 1953) he corrected the text accordingly, but the exegetical note on the passage there (Vol. II, p. 423) still stands as it was written for the impossible reading $\epsilon\delta$. On the reading here, the passage as a whole, and its relation to A, chap. 9, where it is lacking at 991 A 8 cf. Cherniss, *Aristotle's Criticism of Plato etc.*, I, pp. 308-313.

¹²⁷ *Metaphysics* 1079 A 32—B 3.

tions,—the doctrine, in short, which according to Parmenides' argument implies an infinite regress.

Now, that argument, as we have seen, is in fact much more than a refutation of the doctrine of paradeigmatic ideas. If it were valid, it would be a general proof that nothing can be a likeness or image of anything whatever; and it is probable that this was the scope and purpose of the original argument, which, as presented in the *Parmenides*, is merely adapted *ad hoc* to refute the specific use of "likeness" in the theory of ideas. There is evidence elsewhere in Plato's writings that he knew such general arguments against the existence of images or likenesses and that he was interested in the challenge of such arguments to define the way in which a likeness is at once distinguished from its original and related to it. When, for instance, Cratylus, in the dialogue named for him, maintains that words are images of the things they name¹³⁸ but that the words must be exact manifestations of those things or not be images of them at all,¹³⁹ Socrates explains at some length that an image *as such* cannot be exactly what that is of which it is an image.¹⁴⁰ The position of Cratylus he connects with the notorious doctrine that no statement can be false, since it is impossible in saying anything not to say what is (τὸ ἄν);¹⁴¹ and in the *Sophist* this same notorious doctrine is said to be the basis of the sophistic contention that there is no such thing as an image, a likeness, or a semblance.¹⁴² This contention, it is said,¹⁴³ the sophist will support by challenging Theaetetus to give a definition of "image"; and, when Theaetetus responds by defining it as "that which by having been assimilated to the real thing is another such thing" (τὸ πρὸς τὸ ἀληθινὸν ἀφομοιωμένον ἕτερον τοιούτου), he is asked whether this means "another *real* thing" or what it is to which "such" (τοιούτου) in his definition refers. He protests that it means not "real" (ἀληθινόν)—otherwise, of

¹³⁸ *Cratylus* 430 A 10—B 2, 439 A 1-4; on all that follows in the text see my paper, "Timaeus 52 C 2-5" in *Mélanges Diels* (1956), pp. 49-60.

¹³⁹ *Cratylus* 431 E 9—432 A 4.

¹⁴⁰ *Cratylus* 432 A-D.

¹⁴¹ *Cratylus* 429 B—430 A.

¹⁴² *Sophist* 264 C 10—D 1 referring to 239 C ff.; cf. 236 E 1—237 A 4 and 238 D 4 ff.

¹⁴³ *Sophist* 239 D—240 C.

course, he would have defined instead of "image" an exact double, indistinguishable from that of which it is supposed to be the image,—but "like" (*ἰσικός*); and he is then forced to admit that he cannot meet the sophist's challenge, since according to his own definition the being of an image or likeness implies its not really being. This passage in its context is part of the aporetic introduction to the proof that "not being" can be meaningfully used in the sense of "otherness" or "difference"; and, with this established, the Sophist can, despite his objection, be defined as one kind of maker of images. The plan and purpose of this dialogue do not require that Plato should here return to explain specifically whether the definition of image offered by Theaetetus is itself saved by the proof that "not-being" in the sense of "otherness" exists and, if so, how that definition accounts for the puzzling relation of likeness to original. For us, however, it is important to emphasize that he does not do so in the *Sophist* and that for enlightenment we must turn again to the *Timaeus*, to that passage in which, as I have already said, the theory of space is presented as saving at once the world of becoming and the conception of its relation to being as that of image or semblance to original reality.

The phrase in Theaetetus' definition that had led to his discomfiture was *ἕτερον τοιοῦτον* "another such thing." "To what does *τοιοῦτον* refer," he was asked; and the only answer that he could give made the being of an image imply its really not being. Now, an image really is not, of course, that by reference to which the *τοιοῦτον* that characterizes it is meaningful; and this, which gives rise to the perplexity of Theaetetus, is in our passage of the *Timaeus* made to explain the distinctive nature of an image. In this passage¹⁴⁴ Plato summarizes in concise, doctrinal language the relation to one another of the three factors: the immutable intelligible reality which is the ideas; the transitory sensible *γινόμενα*, images of the former; and space, the medium in which the continual coming-to-be and passing-away of these images occurs but into which the ideas themselves never enter, as it never enters into *them*. The relevant words for our purpose here assert that: not even that very thing that an image signifies belongs to the image itself, but an image is

¹⁴⁴ *Timaeus* 51 E 6—52 D 1.

always a transitory adumbration of something other than itself; and consequently it must be coming to be in something other than itself and thus cling precariously to being or else itself be nothing at all, whereas what really is cannot be in anything other than itself or anything else in it.¹⁴⁵

The point of the crucial explanation here is not, as various interpreters have said, that "the being of an image *qua* image is not self-related" or that "an image is not its own image" or "its own original" but that any particular image stands for something, refers to something, means something and that this meaning the image has not independently as its own but only in reference to something else apart from it and not dependent upon it but of which, as the parallel and complementary clause says, the image is always a transitory adumbration. So, for example, a human image is not itself *human*; but it is a human *image* precisely because it does not have as its own the "humanity" that it signifies. Or, to take an example from this section of the *Timaeus* itself, an igneous or aqueous image, one of those *μμήματα* which, as we saw, are to be designated by the formula *τὸ διὰ παρὸς τοιοῦτον*, is such because, not having as its own what fire or water is, it signifies or means fire or water. It is because the meaningfulness of an image is its reference to something other than itself that the image is essentially *τοιοῦτον*. As such, it implies a *τι*, something that is *itself* that by reference to which the image is *τοιοῦτον*. Bare *τοιοῦτον*, however, is not *anything* itself and so, to be at all, must have some external basis (*ἰσπαρ*—52 B 1) for being, which it can have only by coming to be in something else. Therefore, because an image is what it is "of something other than itself," it must, even to be itself, come to be "in something other than itself" also, whereas true reality, since it is *itself* what it is independently of anything else, is *τι* and not *τοιοῦτον*. The medium too, in which the image must come to be if it is to have even the being of an image,—this medium, which is space, immutable in its own nature, must also be *τι* and not *τοιοῦτον*. So true reality and space can neither one be in the other, since they cannot be at the same time both two and one identical thing.¹⁴⁶

¹⁴⁵ *Timaeus* 52 C 2—D 1. Cf. my paper referred to in note 138 *supra*.

¹⁴⁶ Cf. Aristotle's argument (*Metaphysics* 1039 A 3-14) that one substance cannot be actually present in another, because what is actually

Thus the *ἕτερον τοιοῦτον* in the definition of image, which reduces Theaetetus to perplexity in the *Sophist* and of which no further explicit account is given later in that dialogue, appears in the *Timaeus* as a fully elaborated explanation of the nature of an image in its relation to the original; and here, moreover, with the explication of this relation is intimately connected the additional factor of the spatial medium which alone is said to make possible the *existence* of an image.

This in itself would be a plausible reason for believing the *Timaeus* to be a later work than the *Sophist*; and the plausibility of such a relative chronology could be reinforced by a comparative study of many other passages, some of them—like those examined here—passages which Owen has mistakenly adduced in support of his own thesis. But, if there were time to examine them all, the result would only increase the *plausibility*; and the highest degree of plausibility is still far different from proof. With this firmly in mind, I would therefore emphasize the following distinctions:

1) All the evidence we have or are likely ever to have requires us to recognize that the *Cratylus*, the *Parmenides*, and the *Theaetetus* were composed before the *Timaeus*.

2) Mr. Owen has adduced no evidence—nor to my knowledge has anyone else—that proves the *Timaeus* to have been composed earlier than the *Sophist*, the *Politicus*, or the *Philebus*; and on the contrary there are plausible reasons for believing that at least the *Sophist* and the *Politicus* antedate the *Timaeus*.

3) Whatever may be the true relative chronology of this group of dialogues, the philosophical doctrine expressed in the *Timaeus* is certainly not at variance with that expressed in any of the others of this group and is not repudiated, abandoned, or in any essential point even modified in any of them.

two can never be one, and the example, ὅτι γὰρ οὐχ ἓν ἡ δυὰς ἡ οὐκ ἔστι
μονὰς ἐν αὐτῇ ἐντελεχείᾳ.

TIMAEUS 38A8-B5

In a recent article written by Mr. G. E. L. Owen to prove that contrary to the general current opinion the composition of the *Timaeus* must have antedated that of the *Parmenides* and its dialectical successors,¹ it is contended that when the *Timaeus* was written the analysis of negation given in the *Sophist* could not yet have been worked out. 'For', Mr. Owen writes, 'the tenet on which the whole new account of negation is based, namely that τὸ μὴ ὄν ἔστιν ὄντως μὴ ὄν (*Soph.* 254D1), is contradicted unreservedly by *Timaeus*' assertion that it is illegitimate to say τὸ μὴ ὄν ἔστι μὴ ὄν (38B2-3); and thereby the *Timaeus* at once ranks itself with the *Republic* and *Euthydemus*.² After brushing aside Cornford's attempt to reconcile this passage of the *Timaeus* with the *Sophist*,³ Mr. Owen concludes his treatment of it with the words: 'So the *Timaeus* does not tally with even a fragment of the argument in the *Sophist*. That argument is successful against exactly the Eleatic error which, for lack of the later challenge to Father Parmenides, persists in the *Timaeus*.'

An examination of the other arguments put forward by Mr. Owen in support of his thesis concerning the relative chronology of the *Timaeus* I reserve for another place.⁴ Here I propose to consider only the meaning of this one passage and whether it really does imply that the *Timaeus* must have been written before Plato had conceived the doctrine enunciated in the *Sophist*. It is a question not now raised for the first time. More than half a century ago Otto Apelt asserted that this passage of the *Timaeus* is enough to prove that work earlier than the *Sophist*.⁵ His assertion did not go unchallenged;⁶ and Apelt himself appears to have lost his original confidence in it, for in his later writings on the relative chronology of the two dialogues he did not again refer to it.⁷

The statement of *Timaeus* 38B as Mr. Owen represents it does certainly appear to contradict the tenet of the *Sophist* that he quotes; and yet, if a few relevant passages in other dialogues are called to mind, one must suspect that this apparent contradiction does not necessarily imply the chronological sequence that he so confidently infers from it. The argument in the *Sophist* to establish the existence of τὸ μὴ ὄν is undertaken in order to prove the possibility of ψευδὴς δόξα or ψευδὴς λόγος, the sophist having denied this possibility on the ground that ψευδὴς δόξα would be τὰ μὴ ὄντα δοξάζειν and that τὸ μὴ ὄν οὔτε διανοεῖσθαι τινα οὔτε λέγειν · οὐσίας γὰρ οὐδὲν οὐδαμῇ τὸ μὴ ὄν μετέχειν.⁸ Now, in the *Theaetetus* (188D-189B) the suggestion that ψευδὴς δόξα is τὰ μὴ ὄντα περὶ ὅτουσιν δοξάζειν is abandoned by Socrates on the ground that ὁ μὴ ὄν δοξάζων οὐδὲν δοξάζει — ὁ μηδὲν δοξάζων τὸ παράπαν οὐδὲ δοξάζει — οὐκ ἄρα οἷόν τε τὸ μὴ ὄν δοξάζειν οὔτε περὶ τῶν ὄντων οὔτε αὐτὸ καθ' αὐτό.⁹ According to Mr. Owen's way of arguing, this ought to prove that Plato when he wrote the *Theaetetus* had not yet thought of the solution recorded in the *Sophist*, namely that τὸ μὴ ὄν in this context means not 'non-existence' but θάρερον and that consequently, as a true statement asserts τὰ ὄντα ὡς ἔστι, one does make a false statement by asserting of a subject τὰ μὴ ὄντα, since this is simply to assert of it ὄντα which are different from the ὄντα that pertain to it.¹⁰ Yet a few pages earlier in the *Theaetetus* itself among the 'common terms that apply to everything' and which it was agreed the soul comprehends by itself without mediation of any bodily faculty there were explicitly

¹ *Classical Quarterly*, N.S. III = XLVII (1953), pp. 79-95 (referred to hereafter simply as 'Owen').

² Owen, p. 89.

³ F. M. Cornford, *Plato's Cosmology*, p. 98, n. 4: 'The non-existent' means (as in ordinary speech) the absolutely non-existent, of which, as the *Sophist* shows, nothing whatever can be truly asserted.'

⁴ To one of these I have already had occasion to refer in *A.J.P.*, LXXV (1954), pp. 129-30. Thus far I have seen comments upon Owen's article by Prof. J. B. Skemp (*Plato's Statesman* [1952], pp. 237-9), G. C. Field (who very generously sent me the text of his unpublished communication summarised in *Proc. of the Classical Association*, LI [1954], p. 52), and Gregory Vlastos (*Philosophical Review*, LXIII [1954], p. 334, n. 20, and p. 335, n. 29); but in none of these is there any reference to Owen's use of *Timaeus* 38B2-3.

⁵ *Rhein. Mus.*, L (1895), p. 429, n. 2, reprinted in his *Platonische Aufsätze* (1912), p. 268, n. 1.

⁶ Cf. G. Fraccaroli, *Platone: Il Sofista e l'Uomo Politico* (1911), pp. 94-5. Among other interpretations which 'reconcile' the passage of the *Timaeus* with the doctrine of the *Sophist*, cf. especially F. Susemihl, *Die Genetische Entwicklung der plat. Philosophie*, II, 2 (1860), p. 376;

E. Halévy, *La Théorie Platonicienne des Sciences* (1896), pp. 243-5 and 268-70; N. Hartmann, *Platon Logik des Seins* (1909), p. 134, n. 1; P. Natorp, *Platon Idealismus* (1921), p. 364.

⁷ It is not mentioned in his edition of the *Sophist* (1897) where the relative chronology of that dialogue is discussed (pp. 37-41), and nothing is said of it in his later translations of the *Timaeus* (either in the Introduction [p. 20], where the *Timaeus* is declared to be earlier than the *Sophist*, or in the note on 38B [n. 73 on p. 161]) and the *Sophist* (p. 13), where that dialogue is dated c. 364 a.c. In the Introduction to his translation of the *Parmenides* (p. 13) Apelt states that both *Timaeus* 38B and the doctrine of τὸ μὴ ὄν in the *Sophist* are equally results of the same Platonic error, the conception of the copula as 'Daseinsausdruck'; but it is not suggested that one of the two must be later than the other.

⁸ *Sophist* 260D1-3, cf. 240D6-241B3.

⁹ Earlier in the dialogue this tenet was ascribed to Protagoras in the defence that Socrates is made to pronounce for him (*Theaetetus*, 167A7-8: οὔτε γὰρ τὰ μὴ ὄντα ὁνομαζόν δοξάζουσιν).

¹⁰ *Sophist* 263B and 263D.

included οὐσία καὶ τὸ μὴ εἶναι and τὸ ταῦτόν τε καὶ θάτερον;¹¹ and in the *Parmenides*, which according to Mr. Owen antedates the *Theaetetus*,¹² Plato makes use of the formula of the *Sophist* for the function of θάτερον¹³ and distinguishes between the sense in which τὸ μὴ ὄν οὐδαμῶς οὐδαμῇ ἔστιν οὐδέ πῃ μετέχει οὐσίας and so cannot be named or spoken of¹⁴ and that in which τῷ μὴ ὄντι τοῦ εἶναι μέτεστι because τὸ μὴ ὄν οὐκ ἔστι implies that εἶναι μὴ ὄν as well as μὴ εἶναι ὄν must be predicable of τὸ μὴ ὄν.¹⁵ What is more, the conclusion concerning true and false statement in which the argument of the *Sophist* culminates and which presumably Plato had not yet thought of when in *Theaetetus* 188D-189B he made Socrates abandon the suggestion there proposed is casually formulated at the very beginning of the *Cratylus*. There¹⁶ Hermogenes without hesitation agrees to Socrates' suggestion that a λόγος is true if it states τὰ ὄντα ὡς ἔστιν and false if it states τὰ ὄντα ὡς οὐκ ἔστιν and that it is therefore possible λόγῳ λέγειν τὰ ὄντα τε καὶ μὴ; in short τὰ μὴ ὄντα in this context means τὰ ὄντα ὡς οὐκ ἔστιν.¹⁷ Without mentioning this Mr. Owen for other reasons does suggest, to be sure, that the *Cratylus* belongs in the 'critical group' of dialogues that follows the *Parmenides*; but such meagre arguments as he gives for this arrangement are not cogent,¹⁸ and it is not clear whether in any case he would be willing to make the *Theaetetus* antedate the *Cratylus*. Even to do so, however, would not suffice to explain *Theaetetus* 188D-189B, for the formula of the *Cratylus* appears in the *Euthydemus* too, the dialogue that Mr. Owen couples with the *Republic*, saying that the *Timaeus* at once ranks itself with them by the assertion in *Timaeus* 38B2-3. To Euthydemus' argument that no one speaks τὰ μὴ ὄντα and that therefore Dionysiodorus in speaking speaks τὰληθῆ τε καὶ ὄντα Ctesippus retorts ἀλλὰ τὰ ὄντα μὲν τρόπον τινα λέγει, οὐ μέντοι ὡς γε ἔχει.¹⁹ This is equivalent to the definition of ψευδὴς λόγος given in the *Cratylus*;²⁰ and as it is there identified with λέγειν τὰ μὴ ὄντα so here Ctesippus substitutes it for his earlier statement, ὁ ταῦτα λέγων . . . οὐ τὰ ὄντα λέγει,²¹ upon which Euthydemus had seized to argue that no one speaks τὰ μὴ ὄντα.²² When Plato composed the *Euthydemus*, then, he must have recognised as a fallacy the argument that it is impossible λέγειν τὰ μὴ ὄντα because τὰ μὴ ὄντα οὐκ ἔστι and must have held that in τὰ μὴ ὄντα λέγειν the words τὰ μὴ ὄντα mean τὰ ὄντα ὡς οὐκ ἔστιν.²³ Consequently, unless one is prepared to believe that the *Theaetetus* antedates the *Euthydemus* as well as the *Cratylus*,²⁴ one must look for the explanation of *Theaetetus* 188D-189B not in the relative chronology of that dialogue but in the meaning and function of the passage in its context;²⁵ and the same holds true with all the more force of *Timaeus* 38B2-3, for

¹¹ *Theaetetus* 185C-E; cf. D. Peipers, *Die Erkenntnistheorie Platon* (1874), pp. 535 f.

¹² Owen, pp. 82, 87, 94. Even among scholars who hold the 'orthodox opinion' that the *Timaeus* is later than the *Sophist* which is closely preceded in order of composition by the *Theaetetus* and the *Parmenides* there has been lively debate as to whether the *Theaetetus* is earlier or later than the *Parmenides*: cf. e.g. A. Diès, *Parménide*, pp. XII-XIII and *Théétète*, pp. 120-3; L. Stefanini, *Platone*, I, pp. LXXVIII-LXXXI and II, p. 133, n. 1; Sir David Ross, *Plato's Theory of Ideas*, pp. 6-9.

¹³ Cf. *Parmenides* 143B3-7 and *Sophist* 255E4-6.

¹⁴ *Parmenides* 163C2-164B4 (cf. 163C6-D1 and 164B1-2).

¹⁵ *Parmenides* 162A6-B4. The question of the text in 162A8-B2 does not affect the crucial point made here, i.e. τὸ μὴ ὄν (scil. μετέχον) . . . οὐσίας τοῦ εἶναι μὴ ὄν (162B1-2). It may be said, however, that despite Diès in his edition and Calogero (*Studi sull' Eleatismo*, p. 244, n. 1) the text which Burnet adopted from Shorey (*A.J.P.*, XII [1891], pp. 349-53) is surely right, for τοῦ <μὴ> εἶναι μὴ ὄν in A8 is guaranteed both by τοῦ μὴ εἶναι in B4 and by τὸ μὴ ὄν ἔχει μὴ εἶναι in A5-6 and this in turn requires τοῦ μὴ εἶναι [μὴ] ὄν in B1-2 (cf. Shorey's reference to *Anal. Prior.* 51B96 ff., *op. cit.*, p. 353).

¹⁶ *Cratylus* 385B.

¹⁷ When later Cratylus in turn denies the possibility of false statement on the ground that whatever one says one says τὸ ὄν (429D), Socrates ironically remarks that this doctrine is too subtle for him and then elicits from Cratylus the grudging admission (430D-431C) that there can be false assertion consisting in the ascription to things of ὀνόματα, ὀήματα, and their combinations, λόγοι, that are dissimilar or inappropriate to them (n.b. 430D5-7, 431B2-C1 and the similarity between the latter passage and *Sophist* 263D1-4).

¹⁸ Of Owen's statements concerning the relative chronology of the *Cratylus* (pp. 80, n. 3 [n.b. *fn.*]; 82, n. 3; 84, n. 3 [n.b. *fn.*]; 85, n. 6) only the last is of any impor-

tance; and that, as I have shown elsewhere (*A.J.P.*, *loc. cit.*, note 4 *supra*), depends upon a misinterpretation of *Timaeus* 49C-50B.

¹⁹ *Euthydemus* 284C7-8.

²⁰ As was recognised by M. J. Routh, *Platonis Euthydemus et Gorgias* (1784), p. 326.

²¹ *Euthydemus* 284B1-2.

²² When Dionysiodorus takes up the argument of Euthydemus again (*Euthydemus* 286A ff.), Socrates, ascribing it to the circle of Protagoras and still more ancient persons (cf. *Theaetetus* 167A7-8, *Cratylus* 429D2-3), says that he has always wondered at this self-refuting doctrine (286C, cf. 287E-288A).

²³ Cf. P. Friedländer, *Platon*, II, p. 188. Without citing the passages of the *Euthydemus* and the *Cratylus*, R. G. Bury in 1895 (*Journal of Philology*, XXIII, pp. 196-7) had maintained that the doctrine of the *Sophist* concerning μὴ ὄν as ὄν is 'fundamental for Platonism from first to last'.

²⁴ This chronology too has been proposed, of course. So, for example, E. Pfeiderer (*Sokrates und Plato* [1896], pp. 318-20, 330, 333, 342) argued for the order *Theaetetus*, *Cratylus*, *Sophist*, *Euthydemus* and P. Natorp (*Platon Idealtheorie* [1921], pp. 119 and 122-3) contended that both the *Euthydemus* and the *Cratylus* were written as appendices to the *Theaetetus*, though both believed the *Timaeus* to be a much later composition than any of these.

²⁵ The same is true of *Republic* 478B6-C1. The argument there is so similar to that of *Theaetetus* 189A-B that according to Owen's method of interpretation the *Theaetetus* ought to be ranked with the *Republic* and both made to antedate the *Euthydemus*. Yet, since *Republic* 477A3-4 and 478D7 show that the μὴ ὄν of 478B6-C1 is τὸ πᾶντως μὴ ὄν, it is possible to interpret this passage as asserting only what is asserted in *Sophist* 237E and 238C8-10 and as being perfectly compatible therefore with the later logical analysis of false statement in that dialogue; and that *Theaetetus* 188D-189B is to be explained by a similar interpretation rather than by the relative

it is even less likely that the *Timaeus* antedates the *Euthydemus* and the *Cratylus* than that the *Theaetetus* does so.²⁶

Even the immediate context of *Timaeus* 38B2-3 is not considered by Mr. Owen. Moreover, his paraphrase of 38B2-3 itself is incorrect, for Timaeus does not there assert that 'it is illegitimate to say τὸ μὴ ὄν ἔστι μὴ ὄν'. What he does say (38A8-B3) is that we make such statements as τὸ γεγονὸς εἶναι γεγονός, τὸ γιγνόμενον εἶναι γιγνόμενον, τὸ γενησόμενον εἶναι γενησόμενον, τὸ μὴ ὄν μὴ ὄν εἶναι, none of which is an 'exact' or 'precise' expression (ὡν οὐδὲν ἀκριβὲς λέγομεν).²⁷ This is not at all the same thing as to assert that these expressions are illegitimate; against such a misleading confusion one should be put on guard not only by the language itself²⁸ and by remembering that Plato elsewhere disparages the concern with scrupulous precision of expression in ordinary circumstances²⁹ but also by the very next sentence in this passage (38B3-5), which declares that this is not the proper occasion for a precise account of these expressions. This sentence has been taken by some to be a specific reference to an earlier discussion and by others to be a promise of such a discussion to come;³⁰ it is neither the one nor the other, but it does clearly imply that Plato has more to say than he thinks appropriate to this context concerning the possible meanings of these imprecise expressions.

It is of ordinary Greek usage that he is here speaking when he says that the expressions in question are employed imprecisely.³¹ When in the *Sophist* he undertakes to prove that one can with impunity say of τὸ μὴ ὄν that it is really μὴ ὄν (254D1-2), he does so by giving the expression a precise and unequivocal meaning, by explaining that μὴ ὄν in this context means not ἐναντίον τι τοῦ ὄντος but ἕτερον μόνον (257B3-4); and whenever he uses the expression there he is careful to call attention to this qualification. Mr. Owen, to be sure, gives the contrary impression, saying that 'this formula (scil. τὸ μὴ ὄν ἔστι μὴ ὄν) is echoed insistently and always without the reservation which would be required on Cornford's interpretation' and citing in support of this *Sophist* 258C2-3 and *Politicus* 284B8 and 286B10.³² The two passages in the *Politicus*, however, do not state the 'formula' at all but simply refer to the argument in the *Sophist* with the words καθάπερ ἐν τῷ σοφιστῇ προσηναγκάσαμεν εἶναι τὸ μὴ ὄν and τὴν τοῦ σοφιστοῦ περὶ τῆς τοῦ μὴ ὄντος οὐσίας (scil. μυκρολογία). In *Sophist* 258C2-3 the 'formula' appears but not without the careful reservation, first in 258B2-3 that μὴ ὄν (cf. B6) as here used signifies not ἐναντίον ἐκείνῳ (scil. τῷ ὄντι) ἀλλὰ τοσοῦτον μόνον, ἕτερον ἐκείνου and again in the sentence in question itself (258C2-3) that τὸ μὴ ὄν is μὴ ὄν in the same sense that has just been defined for τὸ μὴ μέγα and τὸ μὴ καλόν.³³ At the conclusion of the passage Plato defines τὸ εἶδος τοῦ μὴ ὄντος as ἡ θατέρου φύσις, of which τὸ πρὸς τὸ ὄν ἕκαστον μόνον ἀντιτιθέμενον is τὸ μὴ ὄν (258D5-E3), insists once more that he is not speaking of μὴ ὄν in the sense of τὸ ἐναντίον τοῦ ὄντος (258E6-7), and re-emphasises the argument that, in the sense in which he has here been speaking of it, it must be possible for τὸ μὴ ὄν to be μὴ ὄν just because it is ἕτερον τοῦ ὄντος (259A2-B1). The only other passage in which the 'formula' occurs at all and the only one in which it might be said to occur without this qualification is that in which the whole discussion is introduced (254D1-2). It is just because the meaning of the expression in the *Sophist* is precisely defined that as it is used there

chronology of the dialogue is all the more probable because of the preceding passage, 185C-E (see note 11 *supra*), and the following one, 189C1-4 (cf. David Peipers, *op. cit.* [note 11 *supra*], p. 76).

²⁶ The *Euthydemus*, *Cratylus*, and *Theaetetus* belong to the large group of writings in which Plato paid no particular attention to the occurrence of hiatus, while the *Timaeus* belongs to the smaller group, consisting of the *Laws*, *Philebus*, *Timaeus*, *Critias*, *Sophist*, and *Politicus*, in which its occurrence is consistently avoided; and this is the best 'objective' evidence that all of the writings in this latter group are later than any of those in the former. I must reserve for another place discussion of Owen's attempt to circumvent this evidence as well as of the merits and shortcomings of the statistics of vocabulary, which he rejects, and of the statistics of prose-rhythm that he adopts.

²⁷ For this use of ἀκριβὲς see especially *Republic* 330D3-341A2, 341B5-6, 341C4-5, 342B6-7, 346B3 and Proclus, *In Timaeum* 249D - III, p. 35, 24-5 (Dichl): . . . ἀκριβέστερα σημαίνει τῶν ὀνομάτων.

²⁸ Not even for Aristotle is a statement illegitimate because it is not ἀκριβὲς (*Rhetoric* 1369B1-2; *Eth. Nic.* 1094B11-14 and 1104A1-10); cf. also Theophrastus, *Hist. Plant.* I, iii, 5.

²⁹ *Theaetetus* 184C1-5 (cf. *Metaphysics* II, 995A10-12) and *Politicus* 261E; cf. *Theaetetus* 199A4-9, *Laws* 644A, and *Euthydemus* 277E-278C, this last an example of Plato's

attitude towards the so-called ἀκριβολογία of Prodicus (for which cf. L. Radermacher, *Artium Scriptores*, pp. 67-8, nos. 6-10).

³⁰ Cornford (*Plato's Cosmology*, p. 98, n. 4) took it to be a reference back to the *Sophist*. Teichmüller (*Literarische Fehden*, II, p. 360) insisted that it promises a later discussion, which in fact occurs in *Parmenides* 151E-157B, from which it follows that the *Timaeus* antedates the *Parmenides*. Pfeiderer (*Sokrates und Plato*, p. 648) maintained that on the contrary it is a backward reference to the *Parmenides* (cf. Sussemlahl, *Genetische Entwicklung der plat. Philosophie*, II, 2, p. 376). The 'reference' appears to have been a matter of debate among the ancient commentators also (cf. Proclus, *In Timaeum* 253E-F [III, p. 48, 33 ff., Dichl]).

³¹ Cf. λέγομεν in 37E5 (which governs τὰ τοιαῦτα in 38A8) and 38B4; cf. Proclus, *In Timaeum* 253D (III, p. 47, 28 ff. [Dichl]): . . . τὴν συνήθειαν τῶν Ἑλλήνων διήλθε γὰρ, ἐν τῇ δὲ . . . ὑπὸ τῶν τοῖς πολλοῖς τῶν ἀνθρώπων.

³² Owen, p. 89 and p. 89, n. 6. For Cornford's interpretation see note 3 *supra*.

³³ αἴτιον δὲ καὶ τὸ μὴ ὄν κατὰ ταῦτόν . . . μὴ ὄν. Boeckh's addition of <μὴ μέγα> and <μὴ καλόν> in 258C1-2 is highly improbable, and Cornford was right in rejecting it (*Plato's Cosmology*, p. 292, n. 2); but perhaps instead of construing as Cornford does one should take καὶ before τὸ μὴ μέγα in C1 as introducing a new clause depending upon λέγειν ὅτι.

it is exempt from the criticism of *Timaeus* 38B1-3; but this does not invalidate the assertion made in the *Timaeus*, and there is no reason then why, if it is still valid, Plato could not have made it after he had established the precise formula of the *Sophist*. Aristotle provides an instructive parallel to this situation. In *Physics* 187A5-6 he says that there is nothing to prevent τὸ μὴ ὄν from being—not ἀπλῶς but—μὴ ὄν τι and in *Metaphysics* 1003B5-10 that, since by reference to οὐσία even negations of it are said to be, διὸ καὶ τὸ μὴ ὄν εἶναι μὴ ὄν φαμεν; but then in *Metaphysics* 1030A25-26 he asserts that it is a mere verbalism (λογικῶς) to say 'as some do'³⁴ εἶναι τὸ μὴ ὄν, οὐχ ἀπλῶς ἀλλὰ μὴ ὄν. It would be absurd to suppose that this third passage must represent either an earlier or a later stage of Aristotle's thought concerning τὸ μὴ ὄν than the other two, although its relation to them is analogous to that in which the statement in the *Timaeus* stands to the tenet of the *Sophist*.

The assertion made in the *Timaeus* is true, and its truth is in no wise impaired by the argument of the *Sophist*. To say simply τὸ μὴ ὄν μὴ ὄν εἶναι is to speak imprecisely, for besides the meaning vindicated for the expression in the *Sophist*, τὸ μὴ ὄν is not Being, i.e. is what is other than Being, there are other ways in which it could and perhaps more probably would be interpreted, e.g.:

(1) 'Non-Being³⁵ is non-existent.' Whatever the correct reading of *De M.X.G.* 979A37-B1 may be, this is the sense in which the author there uses ὅτι ἐστὶ τὸ μὴ ὄν μὴ ὄν to refute Gorgias, i.e. 'because Non-Being (or 'that which is not') is non-existent'.³⁶ It is probably the sense on which depends the sophistical argument reported by Asclepius also.³⁷

(2) 'Non-Being is non-Being.' In this sense the copula makes the statement the tautology that Aristotle calls a mere verbalism.

(3) 'Non-Being is (exists as) non-Being.'³⁸ Gorgias in his argument passed from the tautology of (2) to this meaning in order to conclude οὐδὲν μᾶλλον εἶναι ἢ οὐκ εἶναι τὰ πράγματα,³⁹ to which the Anonymus replies (979B4-6): εἰ δὲ καὶ ἐστὶ τὸ μὴ ὄν μὴ ὄν, οὐδ' οὕτως ὁμοίως εἴη ἂν τὸ μὴ ὄν τῷ ὄντι· τὸ μὲν γάρ ἐστι μὴ ὄν, τὸ δὲ καὶ ἐστὶν ἔτι.

(4) 'What is not, if it is not, exists.' This meaning is exemplified in the argument of *Parmenides* 162A-B; cf. 162B1-3: τὸ δὲ μὴ ὄν . . . οὐσίας τοῦ εἶναι μὴ ὄν (scil. μετέχει), εἰ καὶ τὸ μὴ ὄν αὐτῷ τῶν ὄντων μὴ ἐστὶν.

The other expressions listed in *Timaeus* 38B are similarly imprecise, for the predicates εἶναι γεγονός, εἶναι γιγνόμενον, and εἶναι γενησόμενον can be understood in three different ways:

(1) They may be taken as periphrastic forms of the perfect, present, and future tenses;⁴⁰ and, so understood, the three expressions would mean simply τὸ γεγονός γέγονε, τὸ γιγνόμενον γίγνεται, τὸ γενησόμενον γενήσεται. The first and third of these are themselves imprecise, for the first may indicate process concluded either at the present moment or at any moment in the past and the third may indicate either the future conclusion of process or its future continuation.⁴¹

(2) The participles may be understood, however, in a genuinely adjectival sense, in which case the meaning is that the subject has the attribute or characteristic expressed by the participle. The distinction between this sense and the preceding one is exemplified by the remark in *Euthyphro* 10C: . . . εἴ τι γίγνεται . . . , οὐχ ὅτι γιγνόμενόν ἐστι γίγνεται, ἀλλ' ὅτι γίγνεται γιγνόμενόν ἐστιν.

³⁴ It is improbable that this is meant to refer to Plato's *Sophist*, as most modern commentators suppose it is. In the *Sophist* (258C3) τὸ μὴ ὄν is expressly said to be ἐνάρημον τῶν πολλῶν ὄντων εἶδος ἓν, whereas the τινες referred to here, as Pseudo-Alexander points out (*Metaph.*, p. 479, 17-19), do not according to Aristotle say that τὸ μὴ ὄν ἐπάρχει καὶ ἐστὶ τῶν ὄντων. Asclepius (*Metaph.*, p. 385, 30-31) takes the reference to be to 'the sophists'. τὸ μὴ ὄν ἐστὶ μὴ ὄν was used by Gorgias ([Aristotle], *De M.X.G.* 979A26; cf. Sextus Empiricus, *Adv. Math.* VII, 67); and Aristotle may have in mind such arguments as his, in fact the same kind of expressions as those to which Plato refers in *Timaeus* 38B.

³⁵ Or 'that which is not' or even 'the false' (cf. Aristotle, *Metaphysics* 1017A31-32, 1026A35, 1051A34-B2).

³⁶ Cf. G. Calogero, *Studi sull' Eleatismo*, p. 174 but also the note of Loveday and Foster in the Oxford Translation, Vol. VI ad loc.

³⁷ *Metaph.*, p. 385, 31-4: τὸ μὴ ὄν ἐστὶν ἢ οὐκ ἐστὶν; εἰ μὲν οὖν ἐστὶν, ἀντίθεν ἀποπον τὸ λέγειν ὅτι ἐστὶ [τὸ] μὴ ὄν· εἰ δὲ μὴ ἐστὶ [τὸ] μὴ ὄν, αἱ δύο ἀρνήσεις μίαν κατὰθεσιν ποιοῦσιν, ὥστε πάλιν ἐστὶ τὸ μὴ ὄν. Hayduck saw that the last apodosis requires the excision of the second [τὸ], but the alternative is an argument only if the former [τὸ] also is excised: 'if it exists, it is obviously absurd to say that it is non-existent'. For μὴ ὄν used predicatively in this

sense, cf. Plutarch, *Adv. Coloten* 1115E (p. 190, 28 [Pohlenz]).

³⁸ Cf. Porphyry *apud* Simplicium, *Phys.*, p. 135, 1-2: . . . τὸ μὴ ὄν λέγειν εἶναι, οὕτως μέντοι εἶναι ὡς μὴ ὄν.

³⁹ *De M.X.G.* 979A25-28 (on which see Calogero, *op. cit.* [note 36 *supra*], p. 161). Cf. Sextus, *Adv. Math.* VII, 67 (p. 204, 10-11 [Bekker]): ἡ δὲ ἐστὶ (scil. τὸ μὴ ὄν) μὴ ὄν, πάλιν ἐστὶν and Aristotle, *Rhetoric* 1402A4-5: οὐκ ἔν μὲν τοῖς διαλεκτικοῖς ὅτι ἐστὶ τὸ μὴ ὄν ὄν· ἐστὶ γὰρ τὸ μὴ ὄν μὴ ὄν.

⁴⁰ These periphrastic forms of the perfect and present tenses are common; cf. e.g. for γεγονός ἐστι = γέγονε *Philebus* 33C6, *Symposium* 204D2 and for γιγνόμενόν ἐστι = γίγνεται *Politicus* 301D8, *Laws* 800C5-6. The periphrasis with the future participle is less common, but it occurs along with the periphrastic present and aorist in *Laws* 888E4-6 (cf. E. B. England, *The Laws of Plato*, II, p. 452 ad loc. and Apelt's translation, *Platons Gesetze*, p. 402). Cf. also Plutarch, *De Communibus Notitiis* 1082D (p. 114, 16-17 [Pohlenz]) where γεγονός ἐστι = παρήχηκε and γενησόμενόν ἐστι = μέλλει.

⁴¹ In *Parmenides* 141D-E Plato avoids the former ambiguity by distinguishing between πᾶν γέγονε and ποτὲ γέγονε and the latter by coining γενήσεται which he distinguishes from γενήσεται; cf. Proclus, *In Parmenidem*, col. 1237, 23-41 (Cousin) and A. Meillet, *Rev. de Philologie*, XLVIII (1924), pp. 44-9.

(3) Finally, *εἶναι* can be construed as existential and the participles as temporal or circumstantial. If the expressions are so understood, they are again imprecise. Since *τὸ γεγονός ἐστι* *γεγονός* can mean 'what has been exists after it has been' and *τὸ γενησόμενον ἐστι* *γενησόμενον* 'what will in future come to be exists when it is still about to be', there is confusion of past and future with the present,⁴³ as there is also when *τὸ γιγνόμενον ἐστι* *γιγνόμενον* is taken to mean 'what is in process of becoming exists while in process of becoming';⁴⁴ and, if *τὸ γεγονός ἐστι* *γεγονός* is understood to mean 'that which has come to be exists when once it has come to be' (i.e. as soon as it has completed the process of becoming),⁴⁵ this would again make inaccurate the other two expressions, according to which the subjects exist while their becoming is still in process or has not yet begun.⁴⁶

So Plato would have been amply justified at any time in asserting as he does in *Timaeus* 38B that the expressions listed there are imprecise. His reason for making the statement at this point in the *Timaeus*, however, must be inferred from the larger context of the paragraph in which it stands and in fact from the whole discourse.

He has just characterised the temporality of the phenomenal world as a moving image of the unchanging eternity of its model. Lest what he means by eternity be mistaken for perpetuity he has explained that terms which refer to temporal process are unconsciously misapplied to what is atemporal when we say of eternal being 'it was, is, and will be':⁴⁷ 'is' alone is truly proper to it, for past and future imply change and what is always changelessly the same cannot be subject to *πρεσβύτερον καὶ νεώτερον γίγνεσθαι*,⁴⁸ *γενέσθαι ποτέ*, *γεγονέναι νῦν*, *εἰς αὖθις ἔσεσθαι*, or anything in which *γένεσις* involves the moving objects of sensation. Of these latter objects, then, one might infer from what has thus far been said, such predicates *are* properly used.⁴⁹ Just at this point, however, comes the remark that we use imprecise statements in making such predications of *τὸ γεγονός*, *τὸ γιγνόμενον*, *τὸ γενησόμενον*, and *τὸ μὴ ὄν*. Of these subjects the first three are obviously designations of the phenomenal world; but each of them and all of them together can be designated *τὸ μὴ ὄν*, in that they are not the being of the immediately preceding account, the eternal being of the ideal model. It is because *τὸ μὴ ὄν* in the context of the *Timaeus* naturally bears this meaning that it is included in the list at all, where it stands at the end as though summarising the preceding three examples and generalising the contrast to *τὴν αἰδίων οὐσίαν* above. It may at the same time mean 'absolute Non-Being' and the 'Not-Being' of the *Sophist*, and in that case the expression of which it is here the subject becomes still more imprecise; but, had Plato meant it exclusively in either of these senses, there would have been no obvious reason for him to mention it at all in this context.⁵⁰

⁴³ So Proclus, *In Timaeum*, III, p. 48, 8-10 and 23-25; cf. Sextus Empiricus, *Pyrh. Hyp.* III, 142 (*εἰ δὲ ὁ παρωχηκώς ἐστι καὶ ὁ μέλλον ἐστιν, ἐνεστώς ἐσται ἐκότερος αὐτῶν*), and Parmenides, Frag. B8, 20 (*εἰ γὰρ ἔγενε', οὐκ ἐστι, οὐδ' εἴ ποτε μέλλει ἔσεσθαι*).

⁴⁴ Cf. Sextus Empiricus, *Adv. Math.* X, 208 (*πάν τὸ γινόμενον, ὅτε γίνεται, οὕτω ἐστίν*); Antiphanes, Frag. 122, 6 (Kock, *Comic. An. Frag.*, II, p. 59 [*οὐδ' ἐστὶ γὰρ πῶ γινόμενον δ γίνεται*]); Plato, *Parmenides* 152C6-D2; Proclus, *In Timaeum*, I, p. 239, 29 and p. 243, 19-20.

⁴⁵ Cf. Aristotle, *Physics* 235B28 (*φανερὸν οὖν ὅτι καὶ τὸ γεγονός, ὅτε γέγονεν, ἐσται*); Proclus, *In Timaeum*, I, p. 290, 25-26 (*τοῦ τὸ σῶμα . . . ἐστίν ὅτε καὶ γέγονεν*).

⁴⁶ Cf. Antiphanes, Frag. 122, 8-9 (*δὲ μὴ γέγονε πῶ οὐκ ἐστ' ἔωσπερ γέγονεν*); Aristotle, *De Generatione* 336A 22-23 (*τὸ δὲ γινόμενον οὐκ ἐστίν*), *Physics* 263B26-28; Simplicius, *Phys.*, p. 1297, 15-19.

⁴⁷ Cf. Melissus, Frag. B2 (*ἐστὶ τε καὶ δεῖ ἦν καὶ αἰεὶ ἔσται*). Anaxagoras appears to have said *γεγονέναι τε καὶ εἶναι καὶ ἔσεσθαι* of god or ποῖς (Frag. A48 = Philodemus, *De Pietae*, c.4 a [cf. K. Reinhardt, *Parmenides*, p. 176, n. 2]); and Heraclitus had used the formula of the cosmos (Frag. B30). Plato makes his Parmenides conclude (*Parmenides* 155D3-4) *ἦν ἄρα τὸ ἐν καὶ ἐστὶ καὶ ἔσται καὶ ἐγένετο καὶ γίγνεται καὶ γενήσεται* on the assumption that, if *τὸ ἐν* exists, it must partake of time (155C8, cf. 151E7-152A3) and on the other hand that, if it does not partake of time, . . . οὐτε ἦν ποτε, . . . οὐτε ἐστίν, . . . οὐτε ἔσται and so οὐδαμῶς ἐστὶ τὸ ἐν (141E3-10). Parmenides himself had written *οὐδέ ποτ' ἦν οὐδ' ἐσται, ἐπεὶ νῦν ἐστίν ὁμοῦ πᾶν* (Frag. B 8, 5); and it has often been said that Plato's criticism of the formula in *Timaeus* 37E5-38A2 is an echo of this line. It may have been in Plato's mind; but, if so, he probably took the *νῦν ἐστίν* as an indication of Parmenides' failure to grasp clearly the notion of atem-

poral eternity (cf. *τὸν νῦν χρόνον . . . μεταξύ τοῦ ἦν τε καὶ ἔσται* [*Parmenides* 152B3-4] and 141E2-3), as in fact it seems to be (cf. also Frag. B8, 26-28 [*αὐτὰρ ἀκίνητον . . . ἐστὶν ἀνάρχον ἀπαντων . . .*] and P. Albertelli, *Gli Eleati*, pp. 143-4 [note 11]).

⁴⁸ It is difficult to refrain from taking this as a direct reference to the arguments whereby Parmenides is made to conclude that *τὸ ἐν* αὐτό τε αὐτοῦ καὶ τῶν ἄλλων *πρεσβύτερον καὶ νεώτερον ἐστὶ τε καὶ γίγνεται καὶ . . . οὐτ' ἐστίν οὐτε γίγνεται . . .* (*Parmenides* 155C4-7; cf. 141C8-D5, 152E2-3). Parmenides is made to assert that whatever exists is temporal (141E7-10, 151E7-152A3) and is located somewhere (145E1, 151A4-5); both assumptions are denied in the *Timaeus*, the former here in 37E-38A, the latter in 52B-C.

⁴⁹ Cf. 38A1-2: *τὸ δὲ ἦν τὸ εἶ ἔσται παρὶ τὴν ἐν χρόνῳ γένεσιν ἰούσαν πρέπει λέγεσθαι*. Here, Owen says in another context (p. 86), 'it is allowed only to say what a *γινόμενον* was and will be'. What the sentence in fact says is that it is proper to say of *γένεσις* that it was and will be, whereas of eternal being it is proper to say only that it is; it is not even forbidden here to say of *γένεσις* also that it is.

⁵⁰ In interpretations such as Cornford's (see note 3 *supra*), where *τὸ μὴ ὄν* is taken to mean precisely 'the absolute non-existent', it is forgotten that the statement about *τὸ μὴ ὄν* is criticised not as being untrue or meaningless but as being imprecise. The specific interpretations of the passage that I have seen (see note 6 *supra*) tend to fall into this error or into one or both of two others: the expression in question is treated as if it were *τὸ μὴ ὄν εἶναι* instead of *τὸ μὴ ὄν μὴ ὄν εἶναι* (so even Proclus, *In Timaeum*, III, p. 48, 12) or the relation of this expression to the other three is neglected. This last is true even of P. Shorey who takes the expression to refer specifically to the tenet of the *Sophist* (*What Plato Said*, p. 300).

Now, Plato himself in the *Timaeus* habitually uses of the phenomenal world the kind of expressions that he here says are imprecise, e.g. γέγονεν,⁵⁰ γεγονώς ἔστιν καὶ ἔτ' ἔσται,⁵¹ γιγνόμενον καὶ ἀπολλύμενον ὧντως δὲ οὐδέποτε ὄν.⁵² Even immediately after having stated that such expressions are imprecise, he declares that the phenomenal world ἔστιν . . . τὸν ἅπαντα χρόνον γεγονώς τε καὶ ὦν καὶ ἐσόμενος.⁵³ His use of such an expression at this very point must certainly have been deliberate: it underscores the statement (38B3-5) that this is not the proper occasion for a precise account of these expressions; it suggests that use of the normal idiom, imprecise though it is, is justified if only one is aware of its imprecision; and it invites the reader to consider for himself the nature of the imprecision in the expressions just listed.

The phenomenal world is γεγονός, γιγνόμενον, and γενησόμενον all together in that at every moment, past, present, and future, it has been, is, and will be in process of becoming; but it is not γεγονός or γενησόμενον in the sense of ever having completed that process in the past or being about to complete it or of existing now as an end-product of becoming or as that which in the future will begin the process,⁵⁴ nor is it, moreover, γιγνόμενον in the sense of really existing while in process of becoming.⁵⁵ So it is μὴ ὄν in that it does not have real existence; but it is not μὴ ὄν in the sense of being non-existent, for it is as like its model as it can be and being a likeness of that eternal existence, which it is not itself, by coming to be in space it clings somehow to existence.⁵⁶ Nor is it μὴ ὄν in the sense in which τὸ μὴ ὄν of the *Sophist* is, for the latter is an idea 'different from that of Being' but ἐνάριθμον τῶν πολλῶν ὄντων εἶδος ἐν no less than is αὐτὸ τὸ ὄν,⁵⁷ so that its mode of being is the eternity of the ideal model; and therefore it in turn is not μὴ ὄν in the sense in which the phenomenal world is, while both alike are not μὴ ὄν since neither is non-existent.

So the assertion in *Timaeus* 38B2-3 is perfectly compatible with the tenet of the *Sophist*. Whether Plato was thinking of that tenet when he set down this assertion is another question, a question to which there can be no answer and the answer to which is in any case irrelevant to the understanding of the passage, since what it says is equally correct and equally intelligible whether it includes a reference to the *Sophist* or does not. *Timaeus* 38A8-B5 is not meant to propose a reformed linguistic usage, the adoption of which Plato came to see is ruled out by logical absurdities.⁵⁸ It is rather Plato's own recognition of the fact that the Greek idioms in which he expresses the nature of the phenomenal world, which is γένεσις and so does not really exist while it is yet not non-existent, are of necessity imprecise. It is a specific example of the general warning that *Timaeus* was made to give against expecting in his discourse πάντα πάντως αὐτοῖς ἐαυτοῖς ὁμολογουμένους λόγους καὶ ἀπηκριβωμένους,⁵⁹ and in this respect it resembles the passage in which he apologises for the order of his discourse by citing the casual and random character that manifests itself in human speech.⁶⁰ Thus, fully motivated and fully intelligible in its own context, it provides no evidence at all to support the hypothesis that it must have been written before the tenet of the *Sophist* had been formulated.

⁵⁰ 28B7, 36E5-6, 92C8-9 (γένονεν . . . μονογενὴς ὦν).

⁵¹ 31B3; for γεγονός cf. 29A5, 37C7.

⁵² 28A3-4 (cf. 27D6 f., 28C1, 52A6). Cf. Diogenes Laertius, III, 64 (τὸ γοῦν ἀλοθιτὸν καὶ ὄν καλεῖ καὶ μὴ ὄν · ὄν μὲν διὰ τὸ γένεσιν αὐτοῦ εἶναι, μὴ ὄν δὲ διὰ τὴν συνεχῆ μεταβολήν); Proclus, *In Parmenidem*, col. 999, 27-29 (καὶ ὅτι τὸ ἀλοθιτὸν πᾶν <scil. μὴ ὄν>. γιγνόμενον γὰρ ἔστι καὶ ἀπολλύμενον, ὅντως δὲ οὐδέποτε ὄν), *In Timaeum*, I, p. 263, 25 (. . . μὴ ὄν ἀλλὰ γιγνόμενον ἔστι τὸ πᾶν).

⁵³ 38C2-3. For the subject of the clause and its construction, concerning which Cornford is right against Fraccaroli and Taylor, cf. besides Proclus, *In Timaeum*, III, p. 50, 29-31 and p. 51, 7-8 Simplicius, *Phys.*, p. 1155, 13-14 and *De Caelo*, p. 105, 25.

⁵⁴ Cf. Proclus, *In Timaeum*, I, p. 282, 1-9; I, pp. 290, 24-291, 12; III, pp. 50, 31-51, 12.

⁵⁵ See note 43 *supra*.

⁵⁶ Cf. *Timaeus* 52C2-5. So in a sense γένεσις as well as real being and space exists (52D3): it is not non-existent even though it is not ὄντως ὄν. Cf. Proclus, *In Timaeum*, I, p. 277, 29-30 (διὰ γὰρ γενέσεως τὸ τοιούδε πάντως ἐφέστηκε καὶ τὸ εἶναι αὐτῷ γιγνόμενον ἔστιν ἀλλ' οὐκ ὄν).

⁵⁷ *Sophist* 258C3, cf. 258B1-2. A. L. Peck has contended that τὸ μὴ ὄν or θάτερον and τὸ ὄν and ταῦτόν are not meant to be taken seriously as ideas, in fact that the *Sophist* is meant to prove that they are not genuine ideas (*Class. Quarterly*, N.S. II = XLVI [1952], pp. 32-56 [cf. pp. 52-53] and N.S. III = XLVII [1953], pp. 146-8). His argument, which seems to me to be entirely mistaken, cannot be examined here. Since, however, he takes the *Timaeus* to be a later work than the *Sophist* and an exposition of Plato's genuine doctrine, it is enough to point out that the ideas of οὐσία, ταῦτόν, and θάτερον appear in *Timaeus* 35A and 37A-B (cf. Cherniss, *Aristotle's Criticism of Plato and the Academy*, I, pp. 409-11).

⁵⁸ As Owen appears to think (p. 85, n. 1). He does not say when 'Plato came to see' that the adoption of the supposed reform 'is ruled out by logical absurdities'; but the text would require us to conclude that it was in the interval between finishing *Timaeus* 38A8-B5 and writing 38C2-3.

⁵⁹ *Timaeus* 29C5-6.

⁶⁰ *Timaeus* 34C2-4.

**A MUCH MISREAD PASSAGE OF THE *TIMAEUS*
(*TIMAEUS* 49 C 7-50 B 5).**

In 1906 Fraccaroli declared that this passage of the *Timaeus* had been misunderstood in whole or in part by all earlier commentators. In 1928 A. E. Taylor in his *Commentary on Plato's Timaeus* agreed with this judgment but included in the condemnation Fraccaroli's own interpretation as well. Despite the appearance of Taylor's commentary, Bury's translation, Cornford's translation and commentary, the careful translation by Robin, and a special note by Hackforth on part of the passage, it remains true in my opinion that the passage has not been correctly translated and explained. Since in consequence it is often cited as evidence for a doctrine that it does not espouse, I have here undertaken to set down first what I hold to be the correct translation of 49 C 7-50 A 4, followed by a detailed commentary to defend and explain this translation point by point, then the translation with commentary of the illustrative passage, 50 A 4-B 5, and finally some supplementary remarks upon the significance of the whole passage in its context.

In *Timaeus* 48 E ff. Plato has said that his account of the universe now requires the introduction of a third factor besides the two that he has hitherto been employing. In an attempt to explain this third factor he speaks of the fact that phenomenal fire, air, water, and earth seem to be constantly changing and giving rise one to another. It is to these phenomena that *τούτων* in 49 D 1, the second word of the translation, refers.

TRANSLATION

- 49 C 7-D1 Since these thus never appear as severally identical, concerning which of them could one without shame firmly assert that this is any particular thing and not another?¹ It is not possible, but by far the safest way is to speak of them on this basis:—
- 49 D 5 What we ever² see coming to be at different times in different places, for example fire, not to say “this is fire” but “what on any occasion is such and such is fire” nor “this is water” but “what is always such and such is water”³ nor ever “<this>”, as if it had some permanence, “is some other”⁴ of the things
- 49 E 1 that we think we are designating as something when by way of pointing we use the term “this” or “that.”⁵ For it slips away and does not abide the assertion of “that” and “this”⁶ or any assertion that indicts them of being stable.⁷ But <it is safest> not to speak of these as severally distinct⁸ but so to call the
- 49 E 5 such and such that always recurs alike in each and all cases together,⁹ for example <to call>¹⁰ that which is always such and such¹¹ fire and so with everything that comes to be;¹² and, on the other hand, that in which these severally distinct characteristics¹³ are ever and anon being manifested as they come to be
- 50 A 1 in it and out of which again they are passing away, it is safest to designate it¹⁴ alone when we employ the word “this” or “that” but what is of any kind soever, hot or white or any of the contraries and all that consist of these, not in turn to call it¹⁵ any of these.

COMMENTARY

¹ ποῖον αὐτῶν ὥς ἐν ὁτιοῦν τοῦτο καὶ οὐκ ἄλλο παγίως δυσχυρίζομενοι. Stallbaum (1838) construed ποῖον αὐτῶν ἔστιν ὃ τις παγίως δυσχυρίζομενος ὅτι ὁτιοῦν αὐτῶν τοῦτό ἐστι καὶ οὐκ ἄλλο. This is syntactically possible but it is nonsensical to say: “of which of them could one without shame assert that any of them is this and not another.” Now, in 49 B 2-5 Plato has said: “For it is hard to assert of each of these severally ὁποῖον ὄντως ὕδωρ χρὴ λέγειν μᾶλλον ἢ πῦρ καὶ ὁποῖον ὁτιοῦν μᾶλλον ἢ καὶ ἅπαντα καθ’ ἑκάστων τε (. . . “and which one must call any particular thing rather than everything at once as well as severally”). This indicates that in the present passage τοῦτο is the subject of ἐν and ὁτιοῦν καὶ οὐκ ἄλλο the predicate, the antecedent of τοῦτο being ποῖον αὐτῶν. The result is the translation that I have given, which is perfectly logical and in accord with

49 B 2-5 in intention as well as in grammar. So far as I know the commentators and translators of the passage, only Eva Sachs (*Die Fünf Platonischen Körper*, p. 189) has clearly got this sentence right, though Robin in his translation (*Platon: Oeuvres Complètes*, II [1942]), may have construed it correctly (. . . "qu'il est celui-ci ou celui-là et non point un autre"). Archer-Hind made τοῦτο καὶ οὐκ ἄλλο the predicate and neglected ὁτιοῦν altogether (. . . "which of them can we positively affirm to be really this" . . .); and Cornford, construing in the same way, tried to account for ὁτιοῦν as a kind of modifier of τοῦτο ("which of them can we steadfastly affirm to be this—whatever it may be—and not something else"). Martin's translation seems to follow Stallbaum's construction. Apelt, Bury, Fraccaroli, and Rivaud are unclear, but all of them either neglected τοῦτο altogether or took ὁτιοῦν τοῦτο together somehow as predicate of δν. Taylor in his *Commentary* does not express himself on this matter. The construction of this sentence has real significance, for anyone who takes τοῦτο here as predicate of δν is almost bound to misconstrue all the rest of the passage.

¹ δὲ δ καθορῶμεν ἄλλοτε ἄλλη γιγνόμενον. Eva Sachs (*op. cit.*, p. 189, n. 1) says that δὲ belongs to προσαγορεύειν in D 6 just as δὲ in 49 D 7 does; and Taylor (*Commentary*, p. 319, n. 1) criticises Fraccaroli for taking "the δὲ of 49 D 4 and that of D 7 apart from the καλεῖν to which they belong." (Since there is no καλεῖν in this sentence, Taylor presumably means προσαγορεύειν in D 6, as Miss Sachs does.) If the δὲ in D 7 goes with προσαγορεύειν, however, the ἐκάστοτε of D 5-6 does too; and, if ἐκάστοτε modifies προσαγορεύειν, the δὲ here in D 4 surely does not, for δὲ . . . ἐκάστοτε προσαγορεύειν would be at least redundant and to construe so would deprive δ καθορῶμεν . . . γιγνόμενον of the generalizing adverb that it clearly requires. Even if ἐκάστοτε in D 5-6 and δὲ in D 7 do not modify προσαγορεύειν, as I believe they do not (see note 3 *infra*), both the word-order and the logic are against taking δὲ here with προσαγορεύειν in D 6 and in favor of taking it with the whole phrase δ καθορῶμεν . . . γιγνόμενον, practically meaning: "whenever anything is seen happening now here and again there." Cf. in the parallel sentence at 49 E 7 ff. (see notes 3 and 14 *infra*) ἐν ᾧ δὲ ἐγγιγνόμενα δὲ . . . ἀπόλλυται . . .

² τὸ τοιοῦτον ἐκάστοτε (D 5-6) and τὸ τοιοῦτον δὲ (D 6-7) are clearly parallel and have the same meaning. This is expressed more circumstantially by τὸ τοιοῦτον δὲ περιφερόμενον ὅμοιον in E 5, where δὲ modifies not περιφερόμενον alone (as Taylor implies [*Commentary*, p. 319, n. 1]) but περιφερόμενον ὅμοιον, i. e. ὅμοιον no less than περιφερόμενον. In E 6-7 τὸ διὰ παντὸς τοιοῦτον is explicitly given as the shorter equivalent of the phrase in E 5; and this in itself shows that τὸ τοιοῦτον ἐκάστοτε and τὸ τοιοῦτον δὲ in D 5-7 are to be taken as unitary phrases, i. e. that ἐκάστοτε and δὲ are not to be separated from τὸ τοιοῦτον and construed with προσαγορεύειν.

That τοῦτο ἀλλὰ τὸ τοιοῦτον ἐκάστοτε and τοῦτο ἀλλὰ τὸ τοιοῦτον αἶψα are primary objects of προσαγορεύειν (i. e. subjects of the statement itself) and πῦρ and ὕδωρ are secondary objects (i. e. predicates) is shown by the use of τὸ τοιοῦτον rather than τοιοῦτον and by the fact that ὁ καθορῶμεν . . . γιγνόμενον, which in fact is what men commonly call "fire," "water," etc., is taken up by τοῦτο (cf. δὲ δὲ . . . ἀπόλλυται, μόνον ἐκαίνο αὐτὸ προσαγορεύειν . . . [49 E 7-50 A 2] and note 14 *infra*). Thus τοῦτο here (D 5 and 6) corresponds to τοῦτο in D 2 correctly understood as the subject of δὲ, and πῦρ and ὕδωρ here correspond to the predicate ὅτιον there (see note 1 *supra*). The injunction therefore is "not to call this transient phenomenon fire or water." So Martin construed these words, and so did Frae-caroli and Ritter (*Platons Dialoge* [1903], p. 115, note: "nicht dieses Bestimmte sondern eben was eine bestimmte Beschaffenheit habe sei Feuer"); Eva Sachs (*op. cit.*, p. 189) apparently construed correctly but confused herself by translating τοῦτο "die Substanz" and τὸ τοιοῦτον "die Qualität." Taylor (*Commentary*, p. 316) says explicitly that Martin is wrong and that τοῦτο and τὸ τοιοῦτον are predicative (i. e. secondary objects): "we must in every case call fire not 'this' but 'this-like';" but the only reason that he gives for rejecting Martin's construction is that it "makes the text really untranslatable," and this is not true. In fact, if τοῦτο were predicative, the πῦρ in D 6 would be worse than redundant; this Cornford seems to have recognized, for he proposed to excise it (*Plato's Cosmology*, p. 179, n. 1) since he too took τοῦτο ἀλλὰ τὸ τοιοῦτον to be predicative. So it had been taken by Archer-Hind, Apelt, and Bury; before them Stallbaum had so construed it as the natural consequence of his misconstruing ὡς δὲ ὅτιον τοῦτο in D 2. Rivaud appears to waver (. . . "du feu par exemple, il ne faut jamais l'appeler 'ceci,' une chose déterminée [i. e. τοῦτο as predicative], mais dire 'ce qui a telle qualité' c'est du feu; ni de l'eau, mais toujours 'ce qui a telle qualité' c'est de l'eau" [i. e. τὸ τοιοῦτον as subject of the statement]), while Robin in his translation appears to construe τοῦτο ἀλλὰ τὸ τοιοῦτον in D 5 as subject of πῦρ but the same phrase in D 6 as predicate of ὕδωρ.

* μηδὲ ἄλλο ποτὲ μηδέν (D 7) is parallel to the preceding πῦρ and ὕδωρ (D 6) and like them must be a secondary object (i. e. predicative). As the preceding προσαγορεύειν is "understood" with μηδὲ ὕδωρ τοῦτο in D 6, so τοῦτο προσαγορεύειν is "understood" with μηδὲ ἄλλο ποτὲ μηδέν here. So Taylor also understands the supplement, though he takes this τοῦτο once more as secondary object (i. e. predicative). This τοῦτο, however, being the same as that in D 5 and D 6, refers to ὁ καθορῶμεν . . . γιγνόμενον and is the primary object of προσαγορεύειν, i. e. the subject of ἄλλο μηδέν, and ὡς τὰ ἔχον βεβαιότητα modifies this τοῦτο, not ἄλλο μηδέν as Taylor supposes. The point is that as we should not say of the transient phenomenon "this is fire" or "this is water," so we should not

imply that it has any permanence by saying of it "this is air," "this is earth," or "this is" anything else either (see note 5 *infra*).

Taylor thinks (*Commentary*, p. 317) that Martin's periphrastic translation implies his own construction, but it seems to me rather to imply the construction that I have adopted. Eva Sachs (*op. cit.*, pp. 189-190) may also have construed this clause as I do, but her translation like Fraccaroli's is too compendious to be clear in this matter. Apelt, Bury, Rivaud, and Robin translate as if they "supplied" only *προσαγορεύειν*, with *ὥς τινα ἔχον βεβαιότητα* as the predicate of *ἄλλο μηδέν* (e.g. Cornford: "nor must we speak of anything else as having some permanence . . ."); but the parallelism of the preceding two clauses, *προσαγορεύειν* with primary and secondary objects, is against the introduction of such a construction here. Archer-Hind's translation, on the other hand, implies *ἄλλο μηδέν* as primary object of *προσαγορεύειν*, *ὥς τινα ἔχον βεβαιότητα* in agreement with this, and *ὅσα δεικνύντες . . . ἡγούμεθά τι* as predicate of *ἄλλο μηδέν*. Archer-Hind translates this last clause: "such predicates as we express by the use of the terms 'this' and 'that' and suppose that we signify something thereby." As Taylor has said (*Commentary*, p. 317) this mistranslates the words *δεικνύντες* and *δηλοῦν*, and in saying "this" of something one does not apply a predicate to it; but possibly Archer-Hind meant by his translation only "such words as we put into the grammatical predicate when we mean to signify something by saying 'This is X'." In that case, however, his translation would mean "we must not imply stability of *anything* by saying of it that it is e.g. fire, water, etc."; but this the passage cannot mean, for, far from saying that nothing can be called "fire," etc. it explicitly states what should and what should not be so called.

¹ *ὅσα . . . ἡγούμεθά τι* — (*τούτων*) *ὅσα . . . ἡγούμεθά τι* and depends upon *ἄλλο μηδέν*, which it thus specifies (so Taylor, Cornford, Bury and apparently Fraccaroli, Apelt, and Robin); but "the antecedent to *ὅσα*" is not, as Taylor says it is (*Commentary*, p. 316), the "things which we mistakenly suppose to be permanent," i.e. the ever-changing phenomena. Taylor supports this interpretation by saying: "For the subject of the following *φεύγει* cannot well be anything but the *ὅσα*, and it is the things falsely supposed to be permanent which *φεύγει*." Martin, Fraccaroli, Apelt, Rivaud, Cornford, and Robin would all appear to admit this argument of Taylor's, for they all translate as if the subject of *φεύγει* were plural. It must be singular, however, as *οὐχ ὑπομένον* proves (of this Archer-Hind, Bury, and Eva Sachs were evidently aware); and the subject of *φεύγει*, therefore, is not *ὅσα* but the *τούτε* which is the primary object of *προσαγορεύειν* and of which *ἄλλο μηδέν (τούτων) ὅσα . . . ἡγούμεθά τι* is the predicate.

The clause, *ὅσα . . . ἡγούμεθά τι*, does not itself mean "phenomena"; it means simply "X, where X is what we mean to designate as something when by using the deictic pronoun we say 'this is

X'." In short it means what Archer-Hind's inaccurately expressed translation of it may have intended, though not in the construction that he gave it (see note 4 *supra*), for the point is not that you should not designate a phenomenon "this" or "that" (the fact that you *cannot* do so is in the next sentence given as the reason why you *should not* do what this sentence enjoins) but that you should not call the phenomenon anything (like "fire" and "water," the examples already given) that is designated in such statements as "this is X."

* I have omitted *καὶ τὴν τῷδε* in E 3 (instead of which according to Rivaud W, Y, and Parisinus Graec. 1812 have *καὶ τὴν τοῦτου*) because it is absent from Simplicius' quotation of this passage (*Phys.*, p. 224, 4-5). It is not, however, open to any of the objections raised against it by Eva Sachs (*op. cit.*, p. 190, n. 1 and p. 204, n. 1), Apelt (n. 140), Taylor (*Commentary*, pp. 317-18), and Cornford (p. 179, n. 3); and the "emendations" of Eva Sachs (*τὴν τοῦ δέν*, which she herself doubted but which is adopted by Rivaud and Robin), Cook Wilson (*τὴν τοῦ ὧδε*), Richards (*τὴν τῷδε*), and Taylor (*τὴν τοῦδε*) are either no improvement or betray misunderstanding of the passage. To say that a phenomenon does not abide the assertion *τῷδε* does *not* mean that it cannot be said "to exist *for* so and so" (as Taylor puts it, *loc. cit.* [if it did, his *τὴν τοῦδε* would be open to the same objection]) but that you cannot designate it *τῷδε* just as you cannot designate it *τόδε* or *τοῦτο*. To designate something *τῷδε* is to indicate that *this thing* has *something else* as a predicate (cf. the Aristotelian formula *τὸ ὑπάρχον τόδε τῷδε*, where *τῷδε* is "subject" and *τόδε* "predicate" [e. g. *Anal. Prior.* 49 A 6]), just as to designate it *τοῦδε* is to indicate that it possesses something else or is the object of an action, thought, or assertion (not that it is "relative to a *this*," i. e. to something else, as Taylor presumes). If because a *γυρόμενον* is constantly changing you cannot point to it and say *τόδε* ("this"), it is obvious that you cannot point to it and say *τῷδε* ("to [or] for this") or *τοῦδε* ("of this") either (cf. *Parmenides* 142 A 1-2: *ὃ δὲ μὴ ἔστι, . . . εἴη ἂν τι αὐτῷ ἢ αὐτοῦ*);).

† The plurals, *μόνιμα ὡς ὄντα αὐτά* (E 3-4) are at first sight strange after the singular subject of *φεύγει οὐχ ὑπομένον* (E 2, see note 5 *supra*), to which *αὐτά* should refer. They present no problem, of course, to the interpreters who erroneously represent the subject of *φεύγει* as plural. On the other hand, Archer-Hind and Eva Sachs, who correctly translate that subject as singular, improperly translate *μόνιμα . . . αὐτά* as singular too. Bury tries to preserve the change in number by translating "For such an object shuns . . . which indicates that they are stable"; but "such an object" is an evasion calculated to soften the transition, which neither he nor anyone explains. Apparently Plato, just because he has said that "it," the phenomenon, does not abide, immediately and without further explanation refers not to "it" as a single thing but to "them," the

multiple and transient phases of the phenomenal flux that cannot be identified as distinct objects.

⁹ ἀλλὰ ταῦτα μὲν ἕκαστα μὴ λέγειν (E 4). Archer-Hind took ἕκαστα as primary object of λέγειν and ταῦτα as secondary object (i. e. predicate of ἕκαστα): "The word 'this' we must not use of any of them." Eva Sachs, Apelt, and Bury construed in the same way and to the same effect. So did Hackforth (*C. Q.*, XXXVIII [1944], p. 36: "... not to speak of the several things in question as 'these'"), though Taylor had already objected (*Commentary*, p. 318) to the supposed use of ταῦτα as the plural of τοῦτο in this sense. Taylor himself took ταῦτα ἕκαστα together as object of λέγειν and interpreted the clause to mean: "one should use none of these phrases." Cornford struck a compromise, construing as Archer-Hind had done but taking ταῦτα to mean "these expressions": "we should not use these expressions of any of them."

Apart from the dubious assumption that Plato would have written μὴ . . . ἕκαστα if he had meant only μὴδὲν αὐτῶν, all these interpretations make this clause a mere repetition of the preceding sentence, which has already said that no phenomenon can be designated τοῦτο or τόδε. What is new in this clause is the word ἕκαστα; and, since the *datum* from which the whole of D 4-E 4 has proceeded is the "fact" that phenomena are processes in which no clear distinction of separate phases can be made (C 7 f.: *τούτων οὐδέποτε τῶν αὐτῶν ἐκδόσεων φανταζομένων*), it seems probable that here the word ἕκαστα is itself a significant part of the injunction consequent upon this fact. I have shown that τοῦτο is the primary object (not the secondary object or predicate) of προσαγορεύειν in D 5 and D 6 and is to be supplied as such in D 7 (see notes 3 and 4 *supra*). It is only reasonable to construe ταῦτα in the same way here, taking it to mean the transient phases of phenomenal process to which the immediately preceding αὐτά refers (see note 7 *supra*), and to construe ἕκαστα as predicative. Martin may have construed the words in this way ("il ne faut jamais nommer à part, comme une chose distincte, aucun de ces objets"), and so may Rivaud ("il ne faut jamais les désigner comme des objets isolés"). Robin must have understood ταῦτα to refer to the phenomena, but he seems to have taken ταῦτα ἕκαστα together as the object of λέγειν ("mais ce sont là, dans leur singularité, êtres à ne point nommer"). This rather obscure translation, when read in the light of Robin's note (p. 1473: "le sujet sensible . . . , détermination passagère . . . , est proprement innomable") appears to approximate the intention of the Greek; but the implied construction can hardly be right, for it leaves οὗτο in E 6 with no reference (as Robin must have sensed, since he evades this difficulty by rendering οὗτο "uniformément"). Fraccaroli clearly took ταῦτα ἕκαστα in the way Robin later did, but he seems to have "supplied" οὗτο with λέγειν by anticipation of οὗτο καλεῖν in E 6 ("non si chiamino quindi così queste cose singole"); this is not only an improbable

device in itself, but it would require οὕτω either to have different references in the two places (i. e. not to call the several phenomena "this," etc. but to call τὸ τοιοῦτον "fire," etc.) or to have the wrong reference in one of the two (i. e. not to call the several phenomena "this," etc. but to call τὸ τοιοῦτον "this," etc.).

* τὸ δὲ τοιοῦτον δὲ περιφερόμενον ὅμοιον ἑκάστου πέρι καὶ συμπάντων οὕτω καλεῖν. Fraaccaroli, Eva Sachs, Robin, and Hackforth take τὸ τοιοῦτον . . . συμπάντων as a single phrase. Martin, Rivaud, Taylor, and Cornford take τὸ τοιοῦτον . . . ὅμοιον as a single phrase but construe ἑκάστου πέρι καὶ συμπάντων with καλεῖν. Stallbaum, Archer-Hind, Apelt, and Bury all separate δὲ περιφερόμενον ὅμοιον from τὸ τοιοῦτον, which they take to stand alone as the designation to be used of "each and all" the phenomena. Stallbaum, changing ὅμοιον to ὁμοίως, interpreted: "to use τὸ τοιοῦτον, since it is always in flux, equally of each and all of them." Archer-Hind adopted Stallbaum's emendation but construed it differently; his translation, supplemented by his notes, is: "but such, applying in the same sense to all their mutations (i. e. keeping pace with the elements in their transformations), we must predicate of each and all (i. e. τοιοῦτον can always be applied to any of them in the same sense [ὁμοίως])." This seems to imply: τὸ τοιοῦτον, δὲ περιφερόμενον ὁμοίως ἑκάστου πέρι καὶ συμπάντων, οὕτω καλεῖν (= ὁμοίως περὶ ἑκάστου καὶ συμπάντων καλεῖν), which at least gives a function to the οὕτω, which Stallbaum disregarded altogether. Apelt retained ὅμοιον, but by "understanding" τῷ γιγνομένῳ with it (see his note 141) interpreted in the same general sense as Archer-Hind: "sondern nur 'das Derartige' dürfen wir als eine in ihrer Bedeutung sich entsprechend wandelnde Bezeichnung von jedem einzelnen wie von allen zusammen brauchen." Here again οὕτω is disregarded, as it is by Bury too, who furthermore, while keeping ὅμοιον, changes περιφερόμενον to περιφερομένων: "but in regard to each of them and all together we must apply the term 'such' to represent what is always circling around (δὲ περιφερομένων ὅμοιον)." Bury's "emendation" is alone enough to condemn his interpretation, since it imports into the text a construction, ὅμοιον with the genitive, unexampled in Plato and questionable in any good Greek (cf. Kühner-Gerth, II, 1, p. 413, n. 10; Stephanns, *Thesaurus*, V [1851], 1966-67). The interpretations of Stallbaum, Archer-Hind, and Apelt all are determined by the erroneous assumption that περιφέρεισθαι must connote a change of nature and that τοιοῦτον must therefore be meant to be the proper denotation of anything so changing (e. g. Archer-Hind: "that is to say τοιοῦτον . . . denote[s] . . . a variable attribute"; Apelt: "Dieser [der Name] . . . ist also in einem beständigen Bedeutungswandel begriffen"). Nothing is ever said here or elsewhere, however, to suggest that the word τοιοῦτον itself implies transience or instability of what it is used to denote, and the verb περιφέρεισθαι need not and in fact usually does not connote change of nature or character in its

subject. An exact parallel to περιφερόμενον here is to be found in *Republic* 402 A (ὅτε τὰ στοιχεῖα μὴ λανθάνει ἡμᾶς ὀλίγα ὄντα ἐν ἀτάσσει οἷς ἔστιν περιφερόμενα) and 402 C (πρὶν ἂν τὰ τῆς σωφροσύνης εἶδη . . . πανταχοῦ περιφερόμενα γνωρίζωμεν . . .). The letters and the εἶδη there are all severally the same wherever they recur (cf. the same example in *Politicus* 277 E-278 D and observe τὴν αὐτὴν ὁμοιότητα καὶ φύσιν [278 B 1-2] used for the identity of a letter that recurs in two different syllables); and ἀεὶ περιφερόμενον ὅμοιον here must have the same meaning: "always recurring alike," i. e. "always self-identical in its recurrences." τὸ διὰ παντὸς τοιοῦτον in the next line, which in the particular example there given must be the equivalent of τὸ τοιοῦτον . . . here, both confirms the meaning of ἀεὶ περιφερόμενον ὅμοιον and shows that these three words at least must form a single phrase with τὸ τοιοῦτον (the predicative position being not unusual but normal for participial modifiers [cf. Gildersleeve, *Syntax of Classical Greek*, Part II, §§ 622, 623, 634]); and it is the stranger that Apelt, Archer-Hind, and Bury did not so construe them, for they all took τὸ διὰ παντὸς τοιοῦτον as a single phrase. There are at least two reasons for taking ἐκάστου πέρι καὶ συμπάντων also as part of this phrase instead of construing it with οὕτω καλεῖν. For one thing it is wanted to emphasize the identity of the characteristic through all its manifestations. The other and decisive reason is the meaning of οὕτω καλεῖν itself.

As has been said, Stallbaum, Apelt, and Bury simply disregarded οὕτω. Taylor (*Commentary*, p. 318) took it to refer forward to the example which follows (as Martin also had done) and interpreted: "in each case and in all to give the name (i. e. the name of 'fire' or 'water,' etc.) to the this-like which is perpetually turning up as similar." Cornford (*Plato's Cosmology*, p. 179, n. 4), on the other hand, took it "as resuming the long phrase that precedes" and translated: "'that which is of a certain quality and has the same sort of quality as it perpetually recurs in the cycle' (τὸ τοιοῦτον . . . ὅμοιον)—that is the description we should use (οὕτω καλεῖν) in the case of each and all of them" (ἐκάστου πέρι καὶ συμπάντων). The "them" which we are so to describe are according to Cornford the phenomena, of which we are not to use the expressions "this" and "that"; and accordingly he tries to interpret τὸ διὰ παντὸς τοιοῦτον (E 6-7), which we are to call "fire," etc., as fiery stuff of which there is at all times a certain amount and of which the quality is sufficiently "alike" to be recognized and named (*op. cit.*, p. 179, n. 5). It is more difficult to be sure just what Taylor conceived τὸ τοιοῦτον . . . ὅμοιον to be, but his references to τοιοῦτον as meaning a "phase," "occurrence," or "passing phase" (*Commentary*, pp. 318-19, 321) suggest that like Cornford he supposed it to be phenomenal appearance for which the designation τοιοῦτον is here recommended. The following words, καὶ δὴ καὶ πῦρ τὸ διὰ παντὸς τοιοῦτον, whether in the original or in the translations of Taylor or of Cornford, comport

ill with such an interpretation, however. Hackforth, therefore, who holds (*op. cit.*, pp. 36-7) that "the purpose of the whole context is not to correct our ordinary *reference* of the terms, fire, air, etc. . . .," objects that the interpretations of Taylor and of Cornford make Plato give a positive injunction that the words "fire," etc. are to be used in a new reference; and he proposes to cure this by placing a colon after καλεῖν and taking τὸ δὲ τοιοῦτον . . . καλεῖν to mean: "rather that quality which in the case of each and all of them is from time to time recurring as a similar quality we ought to designate accordingly (i. e. the right way to indicate a quality is by an adjective, such as πυρῶδες or ὑδαρές)." In fact, however, the whole point of 49 D 3-E 4 (of which Hackforth says nothing in his note) is that the proper reference for the terms "fire," etc. is *not* the phenomenal flux of which men do erroneously try to assert them (see notes 3 and 5 *supra*). Neither has there been anything in the passage so far to suggest that phenomenal fire should properly be called πυρῶδες; and, if οὕτω did refer to τοιοῦτον, as Hackforth makes it do, it ought to mean simply "to call the such and such . . . such and such (the construction which Eva Sachs had long ago put upon it) and not "to call it by adjectives." Hackforth objected to the clumsy Greek implied by Cornford's construction; but worse than clumsiness is its assumption that τὸ τοιοῦτον καλεῖν περὶ ἑκάστου is Greek for "to call each such and such." This construction is implied by the translations of Archer-Hind, Bury, and Apelt too, and Apelt tried to defend it (note 141); but he offers no example of τοῦτο καλεῖν περὶ τινος meaning "to call something this," and I have neither been able to find one nor do I believe that any exists. Cornford and Hackforth, on the other hand, are right as against Taylor and Martin in seeing that οὕτω must get its meaning from something that precedes it, not from what follows.

The fundamental mistake made by these and most interpreters, however, is their assumption that Plato must here be saying what name or kind of name the phenomenal "phases," "moments," or "occurrences" should be called, whereas he has already said that these transient moments of flux cannot be called anything distinct from anything else. This so many have overlooked simply because they have misconstrued the τοῦτο in D 2, D 5, and D 6 and consequently the ταῦτα in E 4. When it is seen that ταῦτα μὲν ἑκάστα μὴ λέγειν means "not to speak of these phenomenal phases as severally distinct," the very balance of the sentence, τὸ δὲ τοιοῦτον . . . οὕτω καλεῖν, "but so to call the such and such . . .," reveals the meaning necessarily to be that "severally distinct," ἑκάστον, is properly predicated rather of the characteristic that is identical in each and all of its recurrences; and in fact a few lines later (E 8) ἑκάστα αὐτῶν is used of these characteristics that are manifested in the medium. (For the interpretations of οὕτω καλεῖν implied by the translations of Fraccaroli and Robin see note 8 *sub fin. supra*. Rivaud apparently makes οὕτω refer to the τοῦ δὲν that he adopts in

E 3; the improbability of that emendation apart [see note 6 *supra*], the reference could not be to τοῦ δέ without being to the τόδε and τοῦτο there [E 2-3] at the same time, and that would amount to making this passage say that τὸ τοιοῦτον κτλ. should be called τοῦτο καὶ τόδε.)

¹⁰ Hackforth (*loc. cit.*) would take this as a separate sentence: "and in point of fact fire is perpetual quality, as also is everything that comes into being." His reason for doing this is determined by his erroneous interpretation of the whole passage, however (see note 9 *supra*); and καὶ δὲ καὶ is best taken in its usual sense as introducing a particular example of the general rule just enunciated, not, as Hackforth does, to introduce a minor premise in a supposed syllogism, the conclusion of which is in fact not expressed.

¹¹ Eva Sachs (*op. cit.*, pp. 190-2) takes τοιοῦτον in E 7 as predicative to πῦρ τὸ διὰ παντός in E 6, which she translates "Feuer in seiner Gesamterscheinung" and distinguishes as "das Feuer im All" (i. e. the "non-substantial" idea of fire) from ἅπαν ὅσοντις ἂν ἔχῃ γένεσιν, which in turn she takes to mean "jedes Feuer das ein Werden hat," i. e. "die Einzelercheinung 'Feuer'." The very fact that whenever τοιοῦτον appears in this passage it appears with the article (τὸ τοιοῦτον in D 5, D 6, E 5) is enough to condemn such a construction and to make it practically certain that here too the article governs τοιοῦτον, i. e. that τὸ διὰ παντός τοιοῦτον is a single phrase to which πῦρ καὶ ἅπαν . . . γένεσιν is to be taken predicatively. (τὸ ἐν τῇ παντὶ πῦρ of *Philebus* 29 B-C will not support either term of Eva Sachs's equation: it has nothing to do with an "idea of fire," and it cannot be a parallel to τὸ διὰ παντός in this passage.)

τὸ διὰ παντός τοιοῦτον is the equivalent of τὸ τοιοῦτον δὲ περιφερόμενον ὅμοιον ἑκάστου πέρι καὶ συμπάντων, i. e. it is the characteristic X which is always X, always identical with itself. The only other possible meaning of διὰ παντός is "thoroughly," "altogether"; and, if that meant anything here, it would come to the same thing. Most interpreters translate by "constantly," "perpetually," "at all times"; but some of them clearly seek to give this a distributive or aggregative implication which approximates the interpretation of Eva Sachs, who baldly translates τὸ τοιοῦτον in E 5 by "Aggregatzustand" and τὸ διὰ παντός in E 6 by "in seiner Gesamterscheinung." So according to Cornford (see note 9 *supra*) τὸ διὰ παντός τοιοῦτον refers to a fiery stuff of which there is *at all times* (i. e. at any given time) a certain amount that can be recognized and named. Apart from the fact that διὰ παντός cannot bear such a meaning any more than it can the still freer translation of Apelt ("alles . . . was überhaupt als ein derartiges erscheint"), τὸ τοιοῦτον has not been prescribed as the proper designation of a single phenomenal occurrence, and so τὸ διὰ παντός τοιοῦτον cannot be prescribed as the designation of any phenomenal aggregate, all of which together must be as transient and indistinguishable as the transient components.

¹² ἄπαν ὅσοντιν δὲ ἔχη γένεσιν like πῦρ is predicate of τὸ διὰ πάντες τοιοῦτον, and this itself proves that τὸ διὰ πάντες is a general formula in which τοιοῦτον is a "variable." I.e. the only factors in generation that can properly be called by the distinct names, "fire," "air," "water," etc. are the characteristics which being perpetually identical are severally distinct, not the unstable manifestations in phenomenal flux that cannot be clearly distinguished from one another.

¹³ ἕκαστα αὐτῶν (E 8), i.e. the perpetually identical characteristics which are severally distinct, each being τὸ διὰ πάντες τοιοῦτον and which are properly called "fire," "water," etc. See note 9 *supra* (sub fn.).

¹⁴ ἐκεῖνο (50 A 1) resumes ἐν ᾧ . . . ἀπόλλυται and is the primary object of προσαγορεύειν. This is exactly parallel to the construction in 49 D 4-6 where τοῦτο resumes δὲ δ καθορῶμεν . . . γιγνόμενον and is the primary object of προσαγορεύειν (see note 3 *supra*).

¹⁵ ἐκεῖνο in 50 A 4 is the primary object of καλεῖν (just as ἐκεῖνο in 50 A 1 is the primary object of προσαγορεύειν [note 14 *supra*]) and μηδὲν τούτων, which resumes τὸ ὁποιοῦν τι . . . ἐκ τούτων is predicate to this. Just as 50 A 1-2 means "to designate it (i.e. the receptacle) alone when we employ the word 'this' or 'that,'" so 50 A 2-4 means "not to call it (i.e. the receptacle) any of these (i.e. any kind of thing [cf. *Theaetetus* 152 D 4 for ὁποιοῦν τι])." This clause was correctly construed by Stallbaum and Martin; but Archer-Hind perversely took ἐκεῖνο to refer to τὸ ὁποιοῦν τι . . . ἐκ τούτων and the antecedent of μηδὲν τούτων to be τῷ τε τοῦτο καὶ τῷ τόδε in the preceding clause (50 A 1-2), and the translations of Apelt, Bury, Cornford, and Hackforth all adopt this misconception (e.g. Hackforth, *loc. cit.*: "to a qualitative entity, whatever it be, . . . we must not apply any of these terms [i.e. terms like 'this' or 'that']"). Fraccaroli and Rivaud have the same misinterpretation, but they seem to have reached it by another way. They appear to have taken μηδὲν τούτων as referring to τὸ ὁποιοῦν τι . . . ἐκ τούτων but to have made this the primary object of καλεῖν and to have taken ἐκεῖνο as predicative (e.g. Rivaud: "pour ce qui est qualifié de quelque manière que ce soit . . . nous ne le designerons jamais du terme *cela*"). As for Taylor, I cannot find that he expresses himself on the matter in his *Commentary*. Robin in 1919 (*Études sur . . . la Physique . . . de Platon*, p. 20, n. 2) adopted Archer-Hind's translation, which he says agrees with that of Cousin; but in his own translation of 1942 he silently discarded it and construed correctly: "mais toute détermination qualitative, chaud ou blanc etc. . . , aucune de ces appellations ne lui (the receptacle) doit être assignée," simply referring to 50 D-51 B, which shows conclusively that this is the meaning of 50 A 2-4 (e.g. 51 A 5-6: τῇ . . . ὑποδοχὴν μήτε γῆν μήτε ἀέρα μήτε πῦρ μήτε ὕδωρ λέγωμεν μήτε ὅσα ἐκ τούτων μήτε ἐξ ὧν ταῦτα γέγονεν).

Timaeus 50 A 4-B 5

There follows immediately a visual figure intended to illustrate what has just been said in 49 C 7-50 A 4.¹⁶ Suppose that golden figures of all kinds are continually being remoulded each and all into all others, and suppose that someone points to one of them and asks "What is it?" In reply to this question, Plato says:

- 50 B 1 By far the surest answer so far as truth is concerned is to say "gold"; but as to the triangle and all the other figures that were coming to be in it, <the surest thing is> never to say "these are,"¹⁷ since they <i. e. what would be denoted by "these">¹⁸ are changing even while one is making the statement, but to be content if with some assurance he may be willing to accept <the statement> "What is such and such <is>."¹⁹
- 50 B 5

¹⁶ With the use of *σαφέστερον . . . εἰρᾶν* here (50 A 4-5) cf. *σαφέστερον παράδειγμα* in *Sophist* 233 D 3 ff. and *τὸ σαφέστατον* in *Laws* 691 B 11 ff.

¹⁷ The reply "gold" (i. e. "this is gold") corresponds to the admonition to designate only the receptacle by the statement "this is . . ." or "that is . . ." (49 E 7-50 A 2). The continually remoulded gold (not the figures themselves that come and go in it) stands for the transient phenomena; and to the injunction not to say of the latter "this is fire," etc. (49 D 5-E 2) corresponds the injunction here *μηδέποτε λέγειν ταῦτα ὡς ὄντα*. This, since the reason given for the injunction (B 3-4: *ἃ γε . . . μεταπίπτει*) is the same as that given (E 2-4: *φεύγει γὰρ . . . φάσις*) for not calling the phenomenon anything of which we say "this is X" (D 7-E 2, see notes 4 and 5 *supra*), must mean "never to say that these are" in the sense "never to say 'this is triangle,' 'this is square,' etc."

This construction and interpretation are in fact implied by Taylor's paraphrase (*Commentary*, p. 321: To the question "What is this I have in my hands?" he says "it would be safer to say 'gold' than to say 'a triangle' or 'a square,' since the figure [i. e., the golden figure to which one would point and say: 'this is . . .'] would be actually changing as you spoke"). All interpreters, so far as I know, elicit an entirely different meaning from the Greek, however, for they take *ταῦτα* as merely resumptive of *τὸ τρίγωνον . . . ἐντετύγντο* and *ὄντα* as existential and translate "never to speak of them (i. e. the triangle, etc.) as existing" or the equivalent. Cornford too translates in this fashion, but in a note (*op. cit.*, p. 182, n. 2) he suggests as preferable: "never to speak of a triangle, etc. as *these* (things), as though they had being." This is to take *ταῦτα* as the secondary object of *λέγειν* (i. e. predicative to *τὸ τρίγωνον*

κτλ.), which is in accord with the erroneous construction of τοῦτο in 49 D 2, D 5, D 6 and ταῦτα in E 4 as predicative. Just as in ὥς δὲ ὁτιοῦν τοῦτο (49 D 1-2), however, τοῦτο is the subject of δὲ (see note 1 *supra*), so here ταῦτα is the subject of ὄντα, for ταῦτα ὥς ὄντα, being the forbidden reply to the question τί ποτ' ἐστί, to which ὅτι χρυσός is the correct answer, must represent ταῦτα τρίγωνον ὅσα τε ἄλλα σχήματά ἐστι just as ὅτι χρυσός stands for τοῦτο χρυσός ἐστι. The displacement of ὥς in such phrases is not uncommon (cf. *Theaetetus* 188 A 3, *Sophist* 255 C 1, *Laws* 878 A 5) nor is the construction ὥς with accusative participle after λέγειν (cf. *Sophist* 263 B 9, *Laws* 643 D 8); *Laws* 641 C 8-D 1 exemplifies both at once, the accusative participle with ὥς after λέγειν and the hyperbaton of ὥς.

In taking ταῦτα as merely resumptive of τὸ τρίγωνον . . . ἐνεγίγνετο interpreters have failed to observe that the figures ὅσα ἐνεγίγνετο <ἐν τῷ χρυσῷ> correspond to the ἑκάστα αὐτῶν ἐγγιγνόμενα <τῇ ὑποδοχῇ> (49 E 8), each of which can be defined by the formula τὸ διὰ παντός τοιοῦτον, and that as these are not to be identified with their phenomenal manifestations, which cannot be clearly distinguished from one another (οὐδέποτε τῶν αὐτῶν ἐκάστων φανταζομένων [D 1]; see note 13 *supra*), so these are not to be identified with the golden figures (σχήματα ἐκ χρυσοῦ). These interpreters would make Plato here deny existence to τὸ τρίγωνον, etc., whereas what he says is simply that you must not point to the continually changing golden shapes and say "these are triangle, square, etc."

¹⁸ From what has been said in note 17 *supra* it should be clear that the antecedent of ἃ γε . . . μεταπίπτει is not τὸ τρίγωνον ὅσα τε ἄλλα σχήματα but ταῦτα—or rather in a strict sense the golden shapes (i. e. the phenomena) to which the naïf answerer is likely to point and say "these are triangles, squares, etc." It is the fact that these are being remoulded even while he says "this is . . ." that makes it wrong to say of them "this is" anything but "gold." Cf. φύγει γὰρ οὐχ ὑπομένον κτλ. (49 E 2) and note 5 *supra* on the subject of that sentence.

¹⁹ ἄλλ' ἐὰν ἄρα καὶ τὸ τοιοῦτον μετ' ἀσφαλείας ἐθέλῃ δέχασθαι τις, ἀγαπᾷν (50 B 4-5). Martin goes wildly wrong here, translating: "mais si quelqu'un demandait à savoir d'une manière certaine comment se nomme une telle apparence (i. e. τὸ τοιοῦτον), il faudrait le lui dire." He seems to have taken ἐθέλῃ δέχασθαι to mean "wants to know," "asks" and ἀγαπᾷν to mean "to comply with the request," "to content him," neither of which is a possible interpretation of the Greek. Archer-Hind, Fraccaroli, Bury, and Cornford took the subject of ἐθέλῃ to be τὸ τρίγωνον ὅσα τε ἄλλα σχήματα. So Cornford translates: "if they so much as consent to accept the description 'what is of such and such a quality' with any certainty"; and the others translate to the same effect. The whole sentence from 50 A 7 to the end, however, is determined by the hypothesis that someone asks a question (δεικνύντος δὲ τις . . . καὶ ἐρομένου τί ποτ' ἐστί)

and is framed as the recommendation of a reply to that questioner (. . . ἀσφαλέστατον εἰπεῖν . . . τὸ δὲ . . . μηδέποτε λέγειν . . . ἀλλ' . . . ἀγαπᾶν); and consequently the person who asks the question, not the thing about which he asks, must be thought of as the one who will accept or decline to accept this answer. So the clause must mean "but to be content if the questioner is willing to accept (as a reply) . . ."; and so far at any rate Rivaud, Robin, and apparently Apelt translate the clause correctly. The reply itself is represented only by τὸ τοιοῦτον, and it is difficult to be sure what these three translators took this to mean. Robin, having construed 50 B 3 to mean "never to designate the triangle, etc. as ὄντα" translates this: "mais si . . . l'interlocuteur . . . accepte qu'on lui nomme *ce tel* que devient la chose." Apelt and Rivaud appear to have interpreted the whole context to mean that you must not speak of the figures as ὄντα but may speak of them as τὸ τοιοῦτον. Taylor too, despite his implied construction of 50 B 3 (see note 17 *supra*), interprets the present clause to mean "you could not safely go further than to call the shape of the moment a τοιοῦτον, a 'phase' in the history of the piece of gold" (*Commentary*, p. 321). Archer-Hind, Fraccaroli, Bury, and Cornford certainly take the meaning to be that the triangle, etc., which should not be spoken of as existing (ὄντα), may admit the predicate "such" (τὸ τοιοῦτον). All such interpretations make τοιοῦτον and ὄν alternatives, a notion that is suggested by nothing in the passage that this sentence is meant to illustrate. τὸ τοιοῦτον here is the abbreviated alternative to the forbidden statement ταῦτα ὡς ὄντα. With it therefore must be understood ὡς ὄν from the preceding ὡς ὄντα and τὸ τοιοῦτον must be related to this ὄν just as ταῦτα is to ὄντα. So those who interpret the former phrase to mean "never to speak of them (i. e. the triangle, etc.) as existing" ought to take τὸ τοιοῦτον here not, as they do, to mean that you may "speak of them as τοιοῦτον" but rather to mean that you may "speak of τὸ τοιοῦτον (contrasted to the triangle, etc.) as existing." Cornford's alternative suggestion for ταῦτα ὡς ὄντα, "never to speak of a triangle, etc. as *these* (things), as though they had being," would permit him to take τὸ τοιοῦτον as parallel to ταῦτα and to understand it to mean "but to speak of the triangle, etc. as τοιοῦτον"; but it would do so only if 1) ταῦτα were the *secondary* object of λέγειν, 2) the subject of ἐθέλη δέχεσθαι were τὸ τρίγωνον κτλ., and 3) τὸ τοιοῦτον were the proper expression of such a predicate object of δέχεσθαι. None of these conditions is acceptable, however. In note 17 *supra* I have shown why ταῦτα must be the subject of ὄντα, not the secondary object of λέγειν, and at the beginning of the present note why the subject of ἐθέλη δέχεσθαι must be the questioner and not the things about which he asks. τὸ τοιοῦτον, then, being the statement which the questioner may be induced to accept and thus replacing ταῦτα, must be the subject of that statement; and the only verb that can reasonably be understood with it is ὄν (or ἐστί) from the preceding ὄντα. This in effect yields as the total injunction

μηδέποτε λέγειν ταῦτα ὡς ὄντα ἀλλὰ τὸ τοιοῦτον <ὡς ὄν>, meaning "never to say these are <the triangle and the other figures>" but to say "what is such and such <is>," which is exactly parallel to μὴ τοῦτο ἀλλὰ τὸ τοιοῦτον ἐκάστοτε προσαγορεύειν πῦρ κτλ. (49 D 5 ff.) and to ταῦτα μὲν ἕκαστα μὴ λέγειν, τὸ δὲ τοιοῦτον . . . οὕτω καλεῖν (49 E 4-6).

SUPPLEMENTARY REMARKS

What Plato says in *Timaeus* 49 C-50 B, in contrast to what he is ordinarily quoted as saying, is:—

1) Phenomena cannot be distinctively denominated, because no part of the phenomenal flux is distinguishable from any other. Because you cannot, by saying "this is . . .," distinguish any phase of the flux from any other, you cannot say of any "this is fire" or "this is water," etc.

2) The distinctive names, naïvely and improperly applied to phenomena, denominate in each case "the such and such, whatever the correct formula may be, that is always identical in each and all of its occurrences."

3) If at any time anywhere one tries to distinguish any phase of the phenomenal flux from any other by saying "this," one always in fact points to the permanent, unchanging, and characterless receptacle in which are constantly occurring transient and indeterminable manifestations of the determinate characteristics just mentioned.

In 50 B-51 B Plato tries further to clarify and illustrate chiefly by use of analogies the nature of this medium or receptacle, which finally in 52 A 8 he calls "space" (χώρα).

What are identified by the formula τὸ τοιοῦτον δὲ περιφερόμενον ὁμοιον ἐκάστου πέρι καὶ συμπάντων οἷ τὸ διὰ παντὸς τοιοῦτον οἷ even just τὸ τοιοῦτον are manifested by coming to be in the receptacle from which again they disappear. Later these distinct and self-identical characteristics that enter and leave the receptacle are called μιμήματα τῶν ὄντων δέι (50 C 4-5) and τῶν δέι ὄντων ἀφομοιώματα (51 A 2), and in 52 C their nature is said to be that of an image (εἰκόν) of intelligible reality, to which it is ὁμώνυμον ὁμοίον τε (52 A 4-7). They are consequently not ideas²⁰ (which, more-

²⁰ As Fraccaroli (*op. cit.*, p. 248, n. 1) seems to suggest and Eva Sachs (*op. cit.*, pp. 191-2) definitely asserts.

over, are emphatically said not to enter into anything [52 A 2-3 and C 5-D 1]). They are occasionally called εἶδη, γένη, and μορφαί (50 C 1, 50 E 5, 51 A 3, 52 D 6), but these words in their context mean only "characters." It is misleading to call them "qualities," as many translators and commentators do, for they are not confined to qualities (the μμήματα of fire, water, earth, air, etc. are on the same footing as those of everything else [cf. 51 B 5-6 and 51 A 5-6]) and the use of τὸ τοιοῦτον in 49 D-50 B has nothing whatever to do with the distinction between "quality" and "substance."²¹ On the other hand, they are not the same as the transient phenomena either, for phenomena are the apparent alterations of the receptacle as a result of their continual entrance into it and exit from it (50 C 3-4). Phenomenal fire is the region of the receptacle that has at any moment been affected by fire, phenomenal water the region that has been affected by water, and so on according as the μμήματα enter into the receptacle (51 B 4-6, cf. 52 D 4-E 1). The intensity and limits of the apparent affections of the receptacle are continually changing and so are indeterminable as fire, water, or anything else. Plato, having said that what fire is cannot be said to be "this" or "that" phase of the phenomenal flux but only to be the perpetually self-identical characteristic that is the determining factor of the indeterminable affection, neither says nor suggests, as he is so often said to do, either that the unidentifiable phases of phenomenal flux can be called τοιοῦτον,²² "such as" the perpetually self-identical characteristic, or that this characteristic can be called τοιοῦτον, "such as" the unidentifiable phase of phenomenal flux. In the *Cratylus* (439 D 8-12) Socra-

²¹ Cornford's use (*op. cit.*, p. 183) of τὸ ὁμοιοῦν τι κτλ. (50 A 2-4) to support the statement that they are "qualities" depends upon his misconstruction of that passage (see note 15 *supra*).

²² E. g. Zeller, *Phil. Griech.*, II, 1, p. 724, n. 1: "49 D f.: man dürfe keinen der bestimmten Stoffe (wie Feuer, Wasser u. s. f.) ein τὸδε oder τοῦτο nennen, sondern nur ein τοιοῦτον . . ."; Robin, *La Physique dans la Philosophie de Platon*, p. 19; Cherniss, *Aristotle's Criticism of Plato*, I, p. 316, note 216 (which should be corrected in accordance with the present note); most of the translators and commentators discussed *supra*; and most recently G. E. L. Owen, *O. Q.*, XLVIII = N. S. III (1953), p. 85, n. 6 ("... the lame plea of the *Tm.* [49 D-E] that even if we cannot say what any mere γιγνόμενον is we can describe it as τὸ τοιοῦτον").

tes says that of what is always in flux ²³ you cannot say, in the first place, *ὅτι ἀεὶ ἔστιν* or, in the second, *ὅτι τοιοῦτόν <ἔστιν>*, and *Timaeus* 49 D–50 B, when rightly read, neither says nor implies anything at variance with this statement.²⁴

The self-identical characteristics are not identified, then, by reference to their transient phenomenal manifestations. They are *μιμήματα τῶν ὄντων αἰεί*; and it is therefore necessary that, having distinguished from the phenomenal flux the receptacle and the determinate characteristics that are manifested in it, Plato should at this point defend his assumption of the intelligible realities of which these characteristics are “copies” or “images.” This he does succinctly in 51 B–E;²⁵ and in the conclusion of the whole section (53 A–C) he can now assert that it is with reference to the ideas that the determining characteristics of phenomena have meaning as it is by their entrance into space that they have existence (52 C). Of the phenomenal flux itself nothing more can be said than that it is the resultant of these entrances and exits in the receptacle.

²³ He is not here talking of phenomenal flux but is putting for the sake of argument the case that *αὐτὸ τὸ καλόν* and *αὐτὸ τὸ ἀγαθόν* and such entities are in continual flux (439 C 7 ff.).

²⁴ Owen (*loc. cit.*), misinterpreting the passage of the *Timaeus* in the usual fashion, concludes that *Cratylus* 439 D and the similar statements in the *Theaetetus* (152 D, 182 C–D) are corrections or refutations of the theory of the *Timaeus* and urges this as one of his arguments for making the composition of the *Timaeus* antedate that of the *Theaetetus* and the *Cratylus*. There are no serious grounds for doubting that these two dialogues antedate the *Timaeus*, however, so that the passages in question are in fact supporting evidence to prove that the usual interpretation of *Timaeus* 49 D–50 B is erroneous; but because of Owen's thesis I have not used them for that purpose.

²⁵ This argument in fact sums up the results of the argument in the *Theaetetus* (cf. *A. J. P.*, LVII [1936], pp. 453 and 455; Ross, *Plato's Theory of Ideas*, p. 103).

TIMAEUS 52 C 2-5

Even as a token of my admiration for Mgr. Diès and of my gratitude for all that he has done to clarify the text and the import of Plato's writings this exiguous note is altogether inadequate. I hope, however, that he may recognize in this minute examination of a single clause in a significant sentence of the *Timaeus* the sincere intention to honor by imitation, however imperfect, his own shining scholarly example.

The clause in question is that in which Plato gives the reason why an image (εἰκών), contrary to what really is (τὸ ὄντως ὄν), is properly in something else : ... εἰκόνι μὲν, ἐπεὶ περ οὐδ' αὐτὸ τοῦτο ἐφ' ᾧ γέγονεν αὐτῆς ἐστὶν ἑτέρου δὲ τινος ἀεὶ φέρεται φάντασμα, διὰ ταῦτα ἐν ἑτέρῳ προσήκει τινὶ γίγνεσθαι, οὐσίας ἀμωσγέπως ἀντεχομένην ἢ μηδὲν τὸ παράπαν αὐτὴν εἶναι... (*Timaeus* 52 C 2-5). The crucial words, οὐδ' αὐτὸ τοῦτο ἐφ' ᾧ γέγονεν αὐτῆς ἐστὶν, have received the most widely varied treatment imaginable, including that of being silently omitted (1) ; and a complete account of this treatment would itself make an interesting note in the history of Platonic scholarship. Such an exhaustive account cannot be given here. Instead I propose only to show that of the more widely publicized interpretations all are either erroneous

(1) Most recently, for example, by Prof. P.-M. Schuhl in his *L'Œuvre de Platon* (Paris) 1954), p. 158 : « ...l'image fantôme changeant d'un autre être, ... ». So also Plotinus, who appears to have had Plato's sentence in mind when he wrote *Enn.* III, vi, 14, lines 4-7 and V, iii, 8, lines 12-13, the latter of which (εἰκόνι γὰρ προσήκει ἑτέρου οὐσαν ἐν ἑτέρῳ γίγνεσθαι, εἰ μὴ εἴη ἐκείνου ἐξηρημένη) sounds like a paraphrase of *Timaeus* 52 C 2-4 with the words in question disregarded, for they certainly are not meant to be rendered by εἰ μὴ... ἐξηρημένη. Chalcidius in his version of the *Timaeus* does not translate 52 C 2-5 at all but substitutes for it a wholly irrelevant sentence (p. 67, 8-12 [Wrobel]) ; in his commentary he omits it from his lemmata (p. 372, 5-9 and p. 373, 13), and where he comes nearest to recognizing its existence (p. 373, 1-3 and 8-12) he gives only a general paraphrase, which avoids specific interpretation of Plato's words.

or are so vaguely phrased as to leave uncertain the meaning intended, whereas the words have a precise and important significance which, though it may have been perceived by many readers of them, has not to my knowledge been suggested and defended in print.

Ficino rendered the words in question : « ...quod imagini quidem, postquam id ipsum, in quo facta est, non ipsius est... (1) ». With correction of the erroneous « postquam » this interpretation was adopted by Estienne (2) in the version : « nam imagini quidem, quoniam nec hoc ipsum in quo facta est, ipsius est... » ; but he added the suggestion that ὥς before εἰκόνι may be the equivalent of ὅτι after λέγειν (which without any question it is) and that ἐπ' ᾧ γέγονεν may mean « propter quod exstitit » or « cuius causa exstitit » (3). I. Bekker in his edition (4) simply reprinted Estienne's note with its two suggested interpretations, one or the other of which with slight variations has been adopted over and over again with little or no attempt to defend the choice or to explain what interpretation chosen could really mean.

T.H. Martin in his *Etudes sur le Timée de Platon* (1841) translated the words according to the former of these two suggestions : « ...cette image, à laquelle cela même dans quoi elle est née n'appartient pas » (I, p. 141). Though he gave no reason for his choice, it may be that it is the influence of his justly celebrated work that has kept this interpretation alive. At any rate, it was adopted, though in different words and without comment, in the translation made under the direction of Saisset (5), was reproduced with slight variations by Paul Natorp in his *Platos Ideenlehre* (6) and by Eva Sachs

(1) *Diol Platonis Opera Omnia Marsilio Ficino Interprete*, Lugduni apud Antonium Vicentium (1557), p. 484.

(2) H. Stephani *Annotationes in Platonem — Platonis Opera Quae Exstant Omnia...* H. Stephani (1578), III, pp. 55-56.

(3) He also proposed (*ibid.*) to read αὐτῆς instead of ἑαυτῆς. In one of the two places where Simplicius reproduces the passage the MSS do give αὐτῆς (*In Aristotelis Physicorum Libros... Commentaria* ed. H. Diels, p. 539, 28), but in the other (p. 225, 10) they read ἑαυτῆς, as all the MSS of the *Timaeus* are reported to do. Few interpreters have adopted Estienne's suggested alteration, but some (e.g. Archer-Hind) have obviously felt what Wilamowitz asserted (*Platon*, II [1919], p. 391), namely that, if the reflexive is retained, εἰκόνι must be the subject of the clause in which the reflexive stands. Even this is not necessarily true, however, for the reflexive is used to refer to the person or thing most prominent in the speaker's thought, and this is not always the subject (cf. *Menaxenus* 241 E 6 f., *Theaetetus* 190 A 6, *Philebus* 32 B 3; Thucydides, II, 7, 1 and VI 50, 4; Xenophon, *Anabasis* II, V, 29 and IV, V, 35 and *Memorabilia* I, II, 52). The position of εἰκόνι here, the fact that it is the subject of γέγονεν, and the contrast to ἐτέρου δέ τινος δὲ πέπειται (of which εἰκόνι is still the subject) fully justify the use of ἑαυτῆς even if αὐτὸ τοῦτο ἐπ' ᾧ γέγονεν is the subject of ἔστιν.

(4) *Platonis Scripta Graeca Omnia*, VII (1826), p. 299.

(5) *Œuvres Complètes de Platon* publiées sous la Direction de M. Emile Saisset, Tome VI (1869) : « ...l'image, différente de la substance au sein de laquelle elle naît... »

(6) Erste Ausgabe (1902), Zweite Ausgabe (1921), p. 368 : « ... dass das bloße Abbild allerdings — da doch das (Substrat) selbst, woran es entsteht, nicht ihm (bleibend) gehört... »

in her book, *Die Fünf Platonischen Körper* (1917) (1), and is the version given without further explanation by G. Zannoni in 1923 (2), by C. Giacon in 1947 (3), and by R. Kapferer and A. Fingerle in 1952 (4). This cannot in any of its expressions be the correct interpretation, however. For one thing, Plato consistently and emphatically employs the phrase ἐν ᾧ to characterize the receptacle or space, as he does in the very conclusion that follows from this clause (5); and it is incredible that in the reason given for this conclusion and here alone he should use ἐφ' ᾧ as a mere variation of this terminology. Moreover, the argument that an image must come to be in something else because that in which it is does not belong to it would imply that that in which entities other than images are *does* belong to those entities; and this Plato here explicitly denies, maintaining instead that in contrast to images what really is is not in anything or anywhere at all.

At first sight Proclus might seem to have thought the reasoning to be that, since everything is ἐν τινι, an image, not being ἐν ἑαυτῇ as is a real entity, must be ἐν ἑτέρῳ τινί, for he paraphrases the passage of the *Timaeus* as follows: οὐδὲ γὰρ ἐν ἑαυτῇ ἐστὶν ἡ εἰκών, καθόσον ἐστὶν, ὡς φησιν, εἰκών, ἀλλὰ ὥσπερ ἄλλου ἐστὶν, οὕτως ἄρα καὶ ἐν ἄλλῳ ἐστὶν (6). Here οὐδὲ ἐν ἑαυτῇ ἐστὶν ἡ εἰκών καθόσον ἐστὶν εἰκών must represent Plato's οὐδ' αὐτὸ τοῦτο ἐφ' ᾧ γέγονεν ἑαυτῆς ἐστὶν; but, since ἐν ἑαυτῇ as employed by Proclus has the technical Neo-Platonic sense of αὐθυπόστατος or αὐτογενής (7), the paraphrase probably means not that an image « is not in itself » in any ordinary sense but that it « is not self-substantial » or « self-constituted ». If

(1) P. 205, n.1: « ...'nicht einmal das, worauf es sitzt, gehört zu ihm, ' nämlich die Materie gehört nicht zu der speziellen Form, die die irdische Einzelercheinung ausmacht. »

(2) *Il Timeo di Platone*, p. 83: « come ad una effigie, — poiché questa materia stessa nella quale prende forma... non è parte di lei stessa... »

(3) *Il Divenire in Aristotele*, p. 161: « ... come avviene dell'immagine la quale non ha come cosa propria ciò su cui è impressa... »

(4) *Platons Timaios oder die Schrift über die Natur*, p. 61: « ...wie bei einem Bild, das ja nicht eben das selbsts ist worin es entstanden ist... »

(5) οἱ δὲ ταῦτα ἐν ἑτέρῳ... τινί γίνεσθαι (52 C 4), cf. οὐδέτερον ἐν οὐδέτέρῳ κατὰ γένεσιν (52 C 7). So consistently and without exception not only in the immediately preceding lines (52 A 6 and B 4: ἐν τινι τόπῳ) but also throughout the whole passage on the receptacle (48 E 2-52 D 1), in the formula enunciated at 50 C 7-D 2 (τὸ μὲν γινόμενον, τὸ δ' ἐν ᾧ γίγνεται, τὸ δ' ὅθεν ἀφομοιούμενον ρύετ' αὐτὸ γινόμενον), in the initial exposition (49 E 7: ἐν ᾧ δὲ ἐγγιγνόμενα, and even in the illustrative similes (50 B 3 [ἐνεγίγντο], 50 D 6 [τοῦτ' αὐτὸ ἐν ᾧ ἐκτυπούμενον ἐνίσταται], 50 E 5 and E 8).

(6) *In Platonis Parmenidem* 129 A, col. 744, 17-20 (Cousin²).

(7) Proclus, *In Platonis Parmenidem*, col. 1145, 31-35 (λίγεται μὲν οὖν ἐν ἑαυτῷ εἶναι πᾶν τὸ ἐαυτοῦ αἴτιον καὶ δ' αὐθυπόστατον ἐστὶν), col. 1146, 18-22 (...τὸ ἐν ἑαυτῷ τοῦτο ῥητέον δ' ἐστὶν αὐτογενὲς καὶ ὑφ' ἑαυτοῦ παραγόμενον), *Elements of Theology*, Prop. 41. Cf. Proclus, *In Timaeum*, III, p. 357, 20-21 (Dichl) = Philoponus, *De Aeternitate Mundi*, p. 364, 21-22 (Rahe): εἰ δὲ ἐν ἑαυτοῖς γίνεται, νοητὰ ἐστὶ καὶ αὐθυπόστατα καὶ ἀμερῆ, and Proclus, *In Timaeum*, I, pp. 280, 28-281, 7: τὴ δὲ ὥτως γινόμενον ἐστὶ τὸ ἐαυτὸ μὴ γενῶν, ἀλλ' ὑφ' ἑτέρου παραγόμενον καὶ εἰδῶλον ἑτέρου γινόμενον... τὸ μὲν γὰρ αὐθυπόστατον ἐφ' ἑαυτοῦ γεννώμενον...

this is what Proclus meant, although it is not clear how he construed the words to extract such a meaning from them (1), his interpretation of them was more like the second of Estienne's suggestions than it was like the first.

This second suggestion, expressed in the words « cuius causa extitit », was the interpretation adopted by F. Ast (2) and G. Stallbaum (3). It is, to say the least, ambiguous ; and the ambiguity is not eliminated by Apelt's similar rendering, « ein Bild trägt ja den Grund seiner Entstehung gar nicht einmal in sich selbst » (4). None of these interpreters explains what he understands by the ground or that because of which the image comes to be, whether that which produces it, the conditions determining its production, or the formal or final cause of its existence. In one form or another, however, each of these more specific interpretations has found its champion.

An image must, of course, have, as an antecedent cause an original or model which is not identical with the image itself. It was perhaps inevitable, therefore, that someone should suppose this to be what Plato was trying to say and should consequently interpret αὐτὸ τοῦτο ἐφ' ᾧ γέγονεν as the equivalent of παράδειγμα. The best known representative of this interpretation is R.D. Archer-Hind, who in his translation rendered the clause as follows : « seeing that it (*scil.* an image) is not the very model of itself, on which it has been created (5). » Archer-Hind thought that this construction of the words had escaped all earlier editors and translators, but in fact he had been anticipated in it by V. Cousin (6) and Hieronymus Müller (7). Despite the cogent criticism of it by J. Cook Wilson (8) and Paul Shorey (9) it was adopted by L. Robin (10) and apparently by C.

(1) There is no reason to suppose that the text which he read was different from ours, though his interpretation would have been easier to justify if he had read ἐφ' οὗ or ὑφ' οὗ instead of ἐφ' ᾧ (cf. the passages cited in page 51, note 7 *supra*). Certainly there is nothing to suggest that he read ἐν αὐτῇ or ἐκ' αὐτῇ instead of ἐαυτῆς (cf. F. M. Cornford, *Plato's Cosmology*, p. 371).

(2) *Platonis Opera*, V (1822), p. 187.

(3) *Platonis Opera Omnia*, VII : *Timaeus et Critias* (1838), pp. 218-219.

(4) *Platons Dialoge Timaios und Kritias* übersetzt und erläutert von Otto Apelt (1919), p. 79.

(5) *The Timaeus of Plato* edited with Introduction and Notes (1888), p. 185. In his note *ad loc.* Archer-Hind gives as a literal version ; « since it is not the original-upon-which-it-is modelled of itself. »

(6) *Œuvres de Platon*, XII (1839), p. 159 : « comme toute image n'est pas la même chose que le modèle sur lequel elle est faite, sans relever non plus d'elle-même, mais... »

(7) *Platons sämtliche Werke*, VI (1857), p. 172 : « da es einem Abbilde, indem nicht einmal Das, nach welchem es gebildet, ihm selbst angehört... »

(8) *On the Interpretation of Plato's Timaeus* (1889), pp. 108-109.

(9) *American Journal of Philology*, X (1889), p. 67.

(10) *Études sur la Signification et la Place de la Physique dans la Philosophie de Platon* (1919), p. 24, n. 2 (= *Revue Philosophique*, LXXXVI [1918]) : « ...à une image, qui ne peut être pour elle-même le modèle dont elle est l'image et sur lequel elle a été créée... »

Giarratano (1) and is retained in the latest edition of Jowett's translation (2). The objections to it, however, are overwhelming. All those who have adopted it have assumed that ἐφ' ᾧ γέγονε means « on which » or « after which » it has been « made » or « modelled » (3); but, natural as these phrases sound in English, French, or German, no example of ἐπὶ with the dative in this sense has ever been adduced, and, even if ἐφ' ᾧ εἰλασθῆναι or ἀφομοιωθῆναι were possible, though Plato never uses either, there is no evidence at all that ἐφ' ᾧ γεγόνεσθαι could have this meaning. Nor is it clear why, if Plato meant simply to say that an image is not its own original, he chose this involved expression instead of οὐδὲ τὸ παράδειγμα or οὐδ' αὐτὸ τοῦτο ᾧ ἀφομοιωταί (4). The οὐδέ itself, however, shows that this is not what he meant to say, for it implies that what is here denied is something that might have been expected to be true; but no common sense, however naïve, would expect an image to be its own original.

J. Cook Wilson (5) contended that the meaning is practically the opposite of this; and A.E. Taylor (6), though rejecting some of his incidental argument, accepted his interpretation. Long before this Kühner in his *Grammatik der griechischen Sprache* (7) had given an interpretation, which Cook Wilson acknowledged as an anticipation of his own: « ein Bild ist nicht einmal das, wozu es hervorgebracht ist, seiner selbst, d.i. im Verhältnis zu sich selbst, also nicht seine eigene Abbildung. » F. Susemihl had also taken ἐφ' ᾧ as expressing purpose and had translated: « ...dem Bilde zwar, da es auch nicht einmal seinen Zweck, um dessen willen es entstanden ist, in sich selber hat,... » (8); and C. Ritter quoted this translation in support of his paraphrase: « ...ein Bild, weil dieses nicht einmal in dem was es leisten soll selbständig ist... » (9). » An earlier paraphrase of

(1) *Il Timeo*, trad. di C. Giarratano, introd. e comment. di G. Manacorda (1950), p. 72, n. 89: « ...neppure quello stesso per cui fu generata, 'cioè il modello, l'idea.' »

(2) *The Dialogues of Plato* (Fourth edition revised, 1953), III, p. 739: « For an image, since the reality, after which it is modelled, does not belong to it,... ». In his note Jowett gives as an alternative version, « since in its very intention it is not self-existent »; but since he calls this « obscure » himself, it is unprofitable to conjecture how he meant it to be understood.

(3) Except Giarratano apparently (cf. n. 1 *supra*), whose « per cui », if it is meant to express instrument, should in Greek be δι' οὗ, ὑφ' οὗ, or ἐφ' οὗ and, if it means « for which », is either impossible (since the image is certainly not generated for the sake of the idea) or ambiguous (see p. 57, note 2 *infra* on R.G. Bury's translation).

(4) Cf. *Timaeus* 31 A 7-8, 39 E 4, *Republic* 510 A 10; or πρὸς ᾧ ἀφομοιωταί or ἀπεικασταί (*Timaeus* 29 C 1-2, *Sophist* 240 A 8) or even ὅθεν or ἀφ' οὗ ἀφομοιωταί (*Timaeus* 50 D 1, *Sophist* 221 C 1).

(5) *Op. cit.* page 52, note 8 *supra*, pp. 109-110.

(6) *A Commentary on Plato's Timaeus* (1928), pp. 347-348.

(7) § 414, 5, b (II, 1, p. 291 of the second edition [1870]) = § 414, 3, Anmerk. 2 (II, 1, p. 334 of the third edition [1898] by B. Gerth). I have not seen the first edition (1834).

(8) *Timaios* übersetzt von Franz Susemihl (1856) = *Platon's Werke*, Vierte Gruppe (Stuttgart, Metzler), p. 770.

(9) *Platon*, II (1923), p. 265 and *Die Kerngedanken der platonischen Philosophie* (1931), p. 167.

Ritter's (« ...ein Nachbild... weil es seinem Begriffe nach nicht selbständig für sich ist, ... » (1) might at first sight seem to imply a different interpretation ; but it probably was not meant to do so, for the others here mentioned also who take ἐφ' ᾧ to express purpose identify this purpose with the essence of εἰκὼν or, as Aristotle would say, identify the final and formal cause. So Wilamowitz supported his translation (« ...dass ein Bild zwar, da es das, was es sein soll, nicht von sich ist,... ») with the remark : « Was ist das ἐφ' ᾧ γέγονεν anders als eben εἰκὼν ?... Die εἰκὼν ist dazu entstanden, nachzubilden, wiederzuspiegeln, εἰκάζειν. Das tut sie aber nicht mit sich », etc. (2) The same identification is clearly implicit in Kühner's sentence quoted above ; but it is most explicitly stated by Cook Wilson and Taylor, who say that αὐτὸ τοῦτο ἐφ' ᾧ γέγονεν means « the very thing for which it was constructed », « the very thing it was meant for » and that this is equivalent to αὐτὸ τοῦτο ὅπερ ἐστίν, « the very thing which it really is », i.e. image. This interpretation was rejected by F.M. Cornford (3) on the ground that the resulting sense is wrong, for, if an image were an image of itself, it would require a medium in which to exist just as much as it does being an image of something else. Furthermore, to say that an image is not an image of itself is only to say in other words that it is not the original of itself (4) ; and, since the latter interpretation, as Cook Wilson himself insists, leaves οὐδέ inexplicable, the former fails equally to account for it, since, if no one would expect an image to be its own original, no one would expect it to be an image of itself either. Finally, not only is it very strange that Plato should have written ἐφ' ᾧ γέγονεν if what he meant was ὅπερ ἐστίν, an expression that he uses elsewhere in just such contexts as this is supposed to be (5) ; but it is clear that he could not have believed οὐδ' αὐτὸ τοῦτο ὅπερ ἐστίν ἐαυτῆς ἐστίν to be a reason why anything must ἐν ἑτέρῳ τινὶ γίνεσθαι, since according to him the idea of difference or otherness is not ὅπερ ἐστίν ἐαυτῆς (6) and yet he does not believe that for this reason this idea any more than any other idea is ἐν ἑτέρῳ τινί.

Cornford himself, taking recourse to the use of ἐφ' ᾧ to introduce the « condition » or « terms » on which an action, state, or agreement depends, translated : « ...an image, since not even the very principle

(1) *Platons Dialoge, Inhaltsdarstellungen* (1903), p. 117. Ritter does not here cite Susmühl's translation or explain how he construes the Greek words.

(2) U. von Wilamowitz-Moellendorf, *Platon*, II (1919), pp. 390-391.

(3) *Plato's Cosmology* (1937), p. 370.

(4) In fact Taylor in his note (*loc. cit.* page 53, note 6 *supra*) unwittingly indicates this when he writes : « But it is true of a 'likeness' or 'reflection' that it is never its own original. The meaning then is simply that a copy or likeness is not even a copy or likeness of itself but always of something else. »

(5) Cf. *Symposium* 199 E 3, *Republic* 439 A 1-2, *Parmenides* 133 E 3, *Sophist* 255 D 7.

(6) *Sophist* 255 D 6-7 : ...συμβέβηκεν ἐξ ἀνέγκης ἑτέρου τοῦτο ὅπερ ἐστίν αὐτοῦ.

on which it has come into being belongs to the image itself,... (1). » The principle or condition on which an image comes to be is, as Cornford says, that there be an original to cast it and a medium to contain it ; and neither of these belongs to the image itself. To this Hackforth objected (2) that one cannot easily speak of the condition of a thing's existence belonging or not belonging to the thing itself, so that the natural expression would have been not *ἐαυτῆς* but *ἐν ἐαυτῇ* or *ἐφ' ἐαυτῇ*. The decisive argument against Cornford's interpretation, however, is that, if it were correct, *ἐτέρου δέ τινος ἀεὶ φέρεται φάντασμα*, which refers specifically to the « original » should be in the apodosis along with *ἐν ἐτέρῳ τινὶ γίνεσθαι*, which specifies the necessity of the medium, and not in the protasis as it is. This clause, *ἐτέρου δέ... φάντασμα*, is given along with *οὐδ' αὐτὸ τοῦτο... ἐαυτῆς ἐστίν* as one of the reasons or part of the reason why an image properly comes to be *ἐν ἐτέρῳ τινί*, not as an inference parallel to this, as it should have been if the reason were the inclusive and general statement that the conditions of existence for an image are « not its own ».

Hackforth (3) reverted to the interpretation of *ἐφ' ᾧ... γέγονεν* as an expression of purpose. Holding that *ἐαυτῆς* is governed by *φάντασμα*, however, and that *φάντασμα* has the verbal sense of *φαντάζειν*, he translated : « Seeing that for an image, inasmuch as the very purpose for which it has come into existence is to present, not itself, but something else which it presents by way of continual motion,... ». This would have been simply expressed, he says, by writing *ἐπείπερ οὐδ' αὐτὸ τοῦτο ἐφ' ᾧ γέγονεν τὸ ἐαυτὴν φαντάζειν ἐστίν*, *ἐτερον δέ τι φαντάζειν ἀεὶ διὰ φορᾶς* ; « but *φαντάζειν* in the active is late Greek, and it is natural to replace it by a noun-construction (4). » Satisfactory as is the sense which Hackforth's English would give, a glance should be enough to show that it cannot be what is intended by the Greek. It disregards entirely both the proper meaning of *οὐδέ* and the position of the negative (5). What is still worse, the words *φέρεται φάντασμα*, even if they could have the meaning, cannot perform the syntactical

(1) *Op. cit.* (page 54, note 3 *supra*), p. 192 and pp. 370-371. Sir David Ross (*Plato's Theory of Ideas* [1951], p. 125) adopted this interpretation without further comment.

(2) R. Hackforth, *Classical Quarterly*, XXXVIII (1944), p. 38.

(3) *Op. cit.* (note 2 *supra*), pp. 38-39.

(4) Hackforth says that, if there were a noun *φάντασις*, Plato might well have used it instead of making *φάντασμα* bear an active (or causative) meaning. In fact, Plato does use the noun *φάντασις* in *Timaeus* 72 B ; but there it too seems to mean « appearance », not « presenting ». Even without *φαντάζειν* or *φάντασις* in the active sense, however, if Plato had wished to say what according to Hackforth he here had to resort to *φάντασμα* to express, he had at his disposal many unambiguous forms of expression, e.g. *εἰκάζειν*, *ἀπεικάζειν*, *ἀποδιδόναι*, all of which are so used in *Cratylus* 432 B (where in line 4 δ *εἰκάζει*, not Burnet's emendation *ᾧ*, should be read ; cf. also *Cratylus* 426 B 3-4), or just *φαίνειν* (cf. *Republic* 533 A 9, 616 E 1) or *ἐμφαίνειν* (*Timaeus* 71 B 8, cf. *παρεμπαίνειν* in 50 E 3-4).

(5) Hackforth translates as if instead of *οὐδ' αὐτὸ τοῦτο... ἐαυτῆς ἐστίν* the Greek were *αὐτὸ τοῦτο... οὐχ ἐαυτῆς ἐστίν*.

function here required of them, for they are construed as a predicate clause after the copula *ἐστίν* and as such would at the very least have to be *φέρεσθαι* (not *φέρεται*) *φάντασμα* (1).

There remains a group of versions closely related to one another both in their ambiguity and in the sense that their authors probably meant them to express. To their ambiguity there is peculiar testimony. Of Rivaud's translation, « l'image, à laquelle n'appartient même pas ce qu'elle représente » (2), Hackforth said that it appears to follow Archer-Hind in giving a false meaning to *ἐπὶ* with the dative, though it differs from him in taking *ἐαυτῆς* as a possessive genitive (3). Yet Paul Shorey, who had rejected Archer-Hind's interpretation of *αὐτὸ τοῦτο ἐπ' ᾧ γέγονεν* as impossible (4), thought Rivaud's translation correct and substantially in accordance with his own (5). His own was : « seeing that not even that which it (*scil.* an image) was made to represent belongs to it (6) » ; and this he meant, as he acknowledged himself, in the sense of Zeller's interpretation of the controversial phrase, « das Wesen zu dessen Darstellung sie dient » (7). G. Fraccaroli too, explicitly rejecting Archer-Hind's interpretation and adopting that of Zeller, translated : « poichè non è suo neanche quello per rappresentare il quale essa è nata (8). » Whether Hackforth or Shorey was right about the meaning of Rivaud's version and whatever exactly was intended by that version and Moreau's, it is obvious that Zeller, Shorey, and Fraccaroli did not understand the Greek to mean « since an image is not the very model of itself » or « its own model » or even « since the model of an image does not belong to the image itself » (9). Instead they apparently

(1) Hackforth's interpretation could not be saved by supposing that the copula of which *αὐτὸ τοῦτο ἐπ' ᾧ γέγονεν* is the subject is to be « understood » and that the rest of the sentence as it stands in the text is a compound predicate, for in that case both the *ἐστίν* and the *φέρεται* in C 3 would have to be infinitives.

(2) *Platon, Œuvres Complètes*, tome X : *Timée-Critias* (Paris, « Les Belles Lettres », 1925), p. 171. Cf. also V. Goldschmidt, *Essai sur le « Cratyle »* (1940), p. 163, n. 4. Substantially the same interpretation is given by Joseph Moreau in Léon Robin's *Platon : Œuvres Complètes*, II, p. 472 (Paris, Bibliothèque de la Pléiade, 1942) : « l'image, du moment que l'objet même qu'elle reproduit, pas même cela ne lui est propre... ».

(3) *Op. cit.* (page 55, note 2 *supra*), p. 38.

(4) *Loc. cit.* (page 52, note 9 *supra*).

(5) *Classical Philology*, XXXIII (1928), p. 357.

(6) *Loc. cit.* (page 52, note 9 *supra*).

(7) E. Zeller, *Die Philosophie der Griechen*, II, 1 (1875), p. 603 = II, 1 (1922), p. 719, n. 3 (on p. 720).

(8) *Platone : Il Timeo* tradotto da G. Fraccaroli (1906), p. 258 and p. 258, n. 2. Fraccaroli, however, mistakenly believed that the translations of Müller (see page 52, note 7 *supra*) and of Jowett (see page 53, note 2 *supra*) implied the same interpretation as that of Zeller. A. Levi (*Il Concetto del Tempo... nella Filosofia di Platone* [1920], p. 103) and L. Stefanini (*Platone*, II (1935), p. 334) both give translations that are essentially the same as Fraccaroli's.

(9) It makes no difference to the logic whether *ἐαυτῆς* be taken as a possessive or as an objective genitive. In either case Plato's argument would be understood as a denial that the image and the model *qua* model are identical ; and this is the real point of those versions too according to which the model of an image — or that after which an image is

took it to mean that even the essence which it is the purpose of an image's existence to represent or manifest is not the image's own essence (1). This would make good sense, but it is not easy to see how these interpreters thought that it could be elicited from the Greek. All their versions imply purpose (« it was made to... », « zu... sie dient », « per...essa è nata »); but, if ἐφ' ᾧ γέγονεν means « for which purpose it has come to be », there is nothing in the Greek to which the notion of « representation » corresponds (2). Since Shorey and Fraccaroli explicitly rejected Archer-Hind's interpretation, it is not possible that they elicited the notion of « representation » from ἐφ' ᾧ γέγονεν in the way he did, i.e. « on which it has been created »; and, even if they got this notion out of these words in some other fashion, there would then be nothing in the Greek to correspond to the expression of purpose in their translations. In any case, their translations seem to make ἐφ' ᾧ γέγονεν express two quite different meanings at the same time, a double interpretation which is made strikingly explicit in Turolla's expanded translation: « siccome all'immagine non appartiene nemmeno quello ch'essa deve rappresentare, al quale scopo ella stessa sussiste (3). »

Shorey cited two passages, however, in support of his interpretation of ἐφ' ᾧ γέγονεν (4); and his version of one of them in his translation of the *Republic* suggests that he neither intended to interpret the phrase in the *Timaeus* as an expression of purpose nor, despite his use of the word « represent », understood it to mean « on which » or « after which the image was fashioned », for he renders ἐφ' ᾧ ἐστὶ and similar occurrences of ἐπὶ with the dative in *Republic* 477 D-478 E as « the object to which it is related » (5). There ἐφ' ᾧ expres-

modelled — does not « belong to » the image (e.g. page 52, note 7; page 53, notes 1, 2 *supra*), for according to them too it is *qua* model that αὐτὸ τοῦτο ἐφ' ᾧ γέγονεν is denied to the image.

(1) Something like this appears to be implied by Zeller's very choice of words, « das Wesen zu dessen Darstellung sie dient », as also by Levi's (*loc. cit.*, page 56, note 3 *supra*): « l'essere che essa è nata per raffigurare. » Fraccaroli in his note on the passage (*loc. cit.*, page 56, note 3 *supra*), applying the general statement specifically to phenomena as images of the ideans, says: « L'immagine dunque non riceve l'esistenza dall'idea che essa rappresenta, non ne ha la μέθεξις, ma è soltanto sua parvenza, una semplice μίμνησις... ».

(2) If ἐφ' ᾧ expresses purpose, αὐτὸ τοῦτο ἐφ' ᾧ γέγονεν should mean simply « that very purpose for which it has come to be » or « that very entity for which it has come to be. » The latter is in fact the interpretation adopted by R.G. Bury (Plato, *Timaeus*, *Critias*, etc. [Loeb Classical Library, 1929]): « ...seeing that it has not for its own even that substance for which it came into being... ». What that substance is for which a copy comes into being he does not explain; but surely it is not « for » the original, unless once more it be for the purpose of representing what the original is.

(3) *Platone: I Dialoghi*, Versione e Interpretazione di Enrico Turolla, III (1953), p. 80.

(4) *Republic* 477 D-478 E and *Parmenides* 147 E (*loc. cit.*, page 52, note 9 *supra*).

(5) Plato, *The Republic*, I (Loeb Classical Library, 1930), pp. 524-529: «...ἐφ' ᾧ τι ἐστὶ καὶ ὃ ἀπεργάζεται..., καὶ τὴν μὲν ἐπὶ τῷ αὐτῷ τεταγμένην..., τὴν δὲ ἐπὶ ἑτέρῳ... (477 D 1-5); ἐφ' ἑτέρῳ δὲ αὖτερόν τι δυναμένη ἵκατέρα αὐτῶν πέφυκεν (478 A 3-4); ἐπιστήμη μὲν γὰρ τοῦ ἐπὶ τῷ ὄντι... (478 A 6); εἰπερ ἐκ' ἄλλῃ ἄλλῃ δυνάμει πέφυκεν... (478 A 12); ...οὐτε ἐπιστήμην οὐτε ἀγνοίαν ἐκ' αὐτῷ εἶσθαι (478 D 7-8). The translations of Robin and of Chambry agree with that of Shorey in these passages. Wilamowitz, to be sure, very strangely cites

ses the objective correlate of a faculty, as it not infrequently does in Plato (1). In *Parmenides* 147 E, the other passage cited by Shorey, ἐπί with the dative, though probably the same idiom in origin, is employed in a rather different way. *Parmenides* here (E 1-2) asserts that δταν ἄρα αὐτὸ (scil. ἕτερον) φθέγγη..., οὐκ ἐπ' ἄλλῳ οὐδὲ ἄλλο τι ὀνομάζεις ἢ ἐκεῖνο οὐπερ ἦν ὄνομα and then concludes (E 3-6) that, though we use the word ἕτερον twice, οὐδέν τι μᾶλλον ἐπ' ἄλλῃ ἄλλ' ἐπ' ἐκείνῃ τῇ φύσει αὐτὸ ἀεὶ λέγομεν ἥσπερ ἦν τοῦτομα. Here by ἐπί with the dative is meant that to which a word refers, what a word stands for, what it signifies. This idiom, which is not an unusual one (2), occurs frequently in passages where Plato wishes to say that the same word may mean different things or different words one and the same thing (3). The reasoning in the passage of the *Parmenides* just cited begins with the question (147 D 1), ἕκαστον τῶν ὀνομάτων οὐκ ἐπὶ τινὶ καλεῖς; from which *Parmenides* goes on to ask (D 7) οὐκοῦν καὶ τὸ ἕτερον ὄνομα ἐστὶν ἐπὶ τινὶ;

There would probably never have been any doubt about the meaning of τοῦτο ἐφ' ᾧ γέγονεν in *Timaeus* 52 C 2 if the subject of γέγονεν had been ὄνομα instead of εἰκών. Yet for Plato words are themselves εἰκόνες of the things for which they stand (4); and there is no reason why the idiom which he so commonly uses to express the significate of this specific kind of εἰκών should not have been employed in connection with εἰκών taken generally. On the contrary, in several important passages he treats the problem of the nature of « image » or « likeness » in close connection with the question of the relation of words to their significates. So *Cratylus*' contention that all words must be accurate manifestations of the things they name is made the occasion for establishing the general principle that no εἰκών can

the first of them (δυνάμει εἰς ἐκεῖνο μόνον βλέπω ἐφ' ᾧ τε ἐστὶ καὶ ὃ ἀπεργάζεται) as decisive support for interpreting ἐφ' ᾧ γέγονεν to mean « for the purpose of which it has come to be, i.e. εἰκάζειν » (loc. cit., page 54, note 2 *supra*); but the whole intent of the passage, to prove that the objects of opining and of knowing are different, shows that ἐφ' ᾧ refers to the objective correlate of the faculty and not to its « purpose » (cf. e.g. ἐφ' ἑτέρῳ... ἑκατέρω αὐτῶν πέφυκεν... ἐπιστήμη μὲν γὰρ τοῦ ἐπὶ τῷ ὄντι... [478 A])

(1) E.g. *Republic* 480 A 1, 511 E 2-3, 534 A 5-7; *Sophist* 236 B 1, 257 C 10-11 (τὸ δ' ἐπὶ τῷ γιγνόμενῳ μέρος αὐτῆς). In *Republic* 511 E 2-3 and 534 A 5-6 the phrases, ἐφ' οἷς ἐστὶν and ἐφ' οἷς ταῦτα are used as if they were indeclinable nouns.

(2) E.g. *Sophist* 237 D 1-2, 262 A 3-7 (n.b. τὸ ἐπὶ ταῖς πράξεσιν ὃν δῆλωμα compared with δῆλωμα τοῦ πράγματος as in *Cratylus* 433 B 3 and D 1-2). Cf. Waitz, *Aristotelis Organon*, I, p. 398 on *Anal. Prior.* 31 B 5: τὸ δ' ἐφ' ᾧ B non idem est quod τὸ δὲ B: « hoc enim terminum significat, illud rem ad quam terminus refertur. »

(3) E.g. *Sophist* 218 C 1-3; *Parmenides* 164 B 9; *Sophist* 244 C 1-2; *Cratylus* 434 C 7-8, 433 E 7-8, 437 C 3-4; *Protagoras* 349 B (πότερον ταῦτα, πέντε ὄντα ὀνόματα, ἐπὶ ἐνὶ πράγματι ἐστὶν, ἢ πτλ.).

(4) *Cratylus* 439 A 1-3; *Sophist* 234 C 6 (εἰδῶλα λεγόμενα) and E 1 (τὰ ἐν τοῖς λόγοις φαντάσματα); *Theaetetus* 206 D 1-5; *Republic* 382 B 9-10. *Cratylus* 423 C-E does not, of course, reject the notion that words are μιμήματα but only distinguishes the μίμησις of language from that of music and painting 1) by its method and 2) by its object, since it is the οὐσία of things, not their sound, shape, or color, that words are intended to express or signify.

be exactly what that is of which it is an εἰκών (1). The position of Cratylus is connected by Plato with the notorious doctrine that no statement can be false, since it is impossible in saying anything not to say what is (τὸ ὄν) (2); and in the *Sophist* this same doctrine is said to be the basis of the sophistic contention that there is no such thing as an εἰκών, εἰδωλον, or φάντασμα (3). When Theaetetus there defines « image » as τὸ πρὸς τἀληθινὸν ἀφωμοιωμένον ἕτερον τοιοῦτον, his interlocutor asks him whether he means another real thing or what it is to which τοιοῦτον in his definition refers — ἢ ἐπὶ τίνι τὸ τοιοῦτον εἶπες; (240 A 7-B 1) —; and Theaetetus, protesting that he means not ἀληθινόν (4) but εἰκός, is constrained to the perplexing conclusion that the being of an εἰκών inevitably implies its not really being (5). An image really is not, of course, that by reference to which the τοιοῦτον which characterizes it is meaningful; and what here is made the occasion of Theaetetus' perplexity is in *Timaeus* 52 C 2-3 affirmed to be the distinctive characteristic of an image.

The controversial words, then, should be taken in the idiomatic sense in which Plato frequently uses them: « since not even that very thing that an image signifies belongs to the image itself (6). »

The point is not that « the being of any image *qua* image is not self-related » or that an image « is not its own image » or « its own original » but that any particular image stands for something, refers to something, means something and that this meaning the image has not independently as its own but only in reference to something else, which is not dependent upon it but of which, as the parallel and complementary clause says, « it is always a transitory apparition » (7). So, for example, a human image is not itself human; but

(1) *Cratylus* 432 A-D. It is, of course, irrelevant to the present question whether or not Plato misrepresents the position of the historical Cratylus (cf. H. Koller, *Die Mimesis in der Antike* [1954], pp. 52-55).

(2) *Cratylus* 429 B-430 A.

(3) *Sophist* 264 C 10-D 1 referring to 239 C ff.; cf. 236 E 1-237 A 4 and 238 D 4 ff.

(4) Otherwise it would not be an image at all but an exact double indistinguishable from that of which it is supposed to be the image. Mgr Diès in his edition of the *Sophist* has called attention to the relation of this passage with that of the *Cratylus* cited in note 1 *supra*.

(5) *Sophist* 240 B. I refrain from discussing here the textual problem of lines 7 and 12, since in any case the meaning of the passage is clear.

(6) For ἐαυτῆς referring to εἰκόνι, which is the subject of γέγονεν, despite the fact that τοῦτο is the subject of ἐστίν see page 50, note 3 *supra*; and for the unannounced change of subject from ἐστίν to φέρεται cf. *Phaedo* 72 C 1-2; *Republic* 360 A 1; *Symposium* 187 E 2-3, 212 C 6-8; B.L. Gildersleeve, *Syntax of Classical Greek*, I, p. 36 (§ 71).

(7) φάντασμα is difficult to translate adequately. Hackforth was right in insisting that it is not a mere synonym of εἰκών, though he was mistaken in supposing that it has an active verbal meaning (*op. cit.* in page 55, notes 2, 3, 4 *supra*). It indicates that an εἰκών is to that of which it is an εἰκών as an adumbration, shadow, or reflection is to that which casts it (cf. *Republic* 509 E 1-510 A 3, 516 B 4-5, 532 C 1-3; *Sophist* 266 B 9-C 4). For ὅτι φέρεται, which is used instead of ἐστίν as more exactly appropriate to what is merely an apparition of what exists, cf. πεφορημένον ὅτι in 52 A 6; in C 2 γέγονεν also is used purposely instead of ἐστίν, since that which the image signifies it comes to signify only at the moment of its appearance.

it is a human *image* precisely because it does not have as its own the « humanity » that it signifies. Or, to take an example from this section of the *Timaeus* itself, an igneous or aqueous image is such because, not having as its own what fire or water is, it refers to, signifies, or means fire or water. Since the meaningfulness of an image is its reference to something (not its own), of which it is an apparition, an image, as was emphasized in the *Sophist*, is essentially τοιοῦτον (1). As such it implies a τι, by reference to which it is τοιοῦτον ; but bare τοιοῦτον cannot be at all without something to serve as basis (cf. ἔδραν, 52 B 1), and so, being ἑτέρου τινος, it is properly ἐν ἑτέρῳ τινί also, unlike the true reality of which it is an apparition. That, being itself τι, and that in which the image as τοιοῦτον appears, being another τι (2), can neither of them be in the other, since they cannot be at the same time both two and one identical thing (3).

(1) *Sophist* 240 A 7 ff. (cf. *Republic* 597 A 4-5). In *Timaeus* 49 D ff. the μιμήματα, which by continually appearing in the receptacle and disappearing from it cause the apparent alterations of it (50 C, 51 B), have been identified by the formulae, τὸ τοιοῦτον, τὸ διὰ παντός τοιοῦτον, τὸ τοιοῦτον ἀεὶ περιφερόμενον ὁμοιον πτλ. Cf. *American Journal of Philology*, LXXV (1954), pp. 113-130 for the meaning of 49 C 7-50 B 5 and pp. 128-130 for the relation of 52 C to the whole preceding section, of which it is the conclusion.

(2) N.B. 52 C 6-7 : ἔως δὲν τι τὸ μὲν ἄλλο ἢ τὸ δὲ ἄλλο...

(3) Cf. Aristotle's argument (*Metaphysics* 1039 A 3-14) that one substance cannot be actually present in another, because what is actually two can never be one, and the example : ἢ γὰρ οὐχ ἐν ἡ δυνάς ἢ οὐκ ἔστι μόνος ἐν αὐτῇ ἐντελεχεία.

GERHARD MÜLLER: Studien zu den platonischen Nomoi. München: C. H. Beck 1951. 194 S. 15 DM. (Zetemata. 3.)

In a dissertation published in 1935¹ Gerhard Müller sought to establish against the criticism of Bruns and Wilamowitz the close consistency of the argument in Books 2 and 7 as well as in Book 1 of the Laws and by this

¹ Der Aufbau der Bücher II und VII von Platons Gesetzen, Diss. Königsberg 1935.

example to demonstrate the compositional unity of the whole work. In maintaining his thesis M. contended that Plato was constant in his hostility towards hedonism, and so he felt constrained to condemn 732 D 8 – 734 E 2 as an un-Platonic interpolation. Concern with this passage, however, drew his attention to the «radical defects of the Laws»; Wilamowitz's characterization of the work as a «strange chaos» impressed itself upon him anew; and he finally came to the conclusion that the whole work suffers from a fundamental disintegration of philosophical conception, style, and political ideals. Now in the monograph under review, a Habilitationsschrift presented in 1946/47 to the Philosophical Faculty in Kiel, M. has undertaken to prove that disintegration of these three kinds is the very essence of the Laws, that the peculiarities of the *Epinomis* are characteristic of the Laws as well, and that these two works are inseparable from each other and are separated from all other Platonic works by a philosophical and stylistic gulf that no hypothesis can either span or explain away.

The argument in support of this thesis is divided among three chapters, the first of which deals with the philosophical concepts of the Laws and concludes that the thought is without unity of structure, that the theory of ideas has disappeared, the themes and formulae of that theory which persist having lost their systematic foundation and original meaning, that features of the cosmology have been taken over from the *Timaeus* but without the reservation of mere probability there expressed, that the mythical has been taken as real and combined with cosmology, that no guiding principle governs the mixture of these heterogeneous elements, and in short that the philosophy of the Laws is a degraded and mongrel form of Platonism. In the second chapter, *The Style of the Laws and the Style of the Epinomis*, M. plays off F. Müller and W. Theiler against A. E. Taylor and J. Harward,¹ agreeing with the latter two that the style of the *Epinomis* is indistinguishable from that of the Laws and with the former pair that the style of the *Epinomis* is un-Platonic. Whereas Taylor had assimilated the style of the *Epinomis* to that of the Laws in order to defend the authenticity of the former, M. adopts the same technique in order to cast doubt upon the authenticity of the latter, arguing that what F. Müller and Theiler have said in condemnation of the *Epinomis* is entirely justified but is exactly applicable to the Laws as well. In the third chapter M. tries by interpreting Book 4 of the Laws to determine the meaning and purpose of the work's political ideal. He argues that this ideal is confused and self-contradictory, that it involves a misunderstanding or distortion of the central proposition of the *Republic*, with which on the other hand the *Politicus* is for its part in perfect agreement, and that neither the relation of the Laws to the *Republic* and the *Politicus* in this matter nor the inner confusion of the Laws itself can be adequate-

¹ M. calls him «the American commentator» (126 and 186) and in the latter passage spells his name «Harvard», which suggests that confusion with the American university may have been responsible for M.'s supererogatory error.

explained by reference to the biography of Plato or by supposing the Laws to have been intended as a practical proposal for reform, as a model for Academic legislators, or as a scientific attempt to collect and codify Greek law. Believing as he does that the Laws was not left incomplete or hastily finished and unpolished, that it was not reworked even slightly by an editor, and that with the *Epinomis* it is an essentially defective work separated by a chasm that no hypothesis of development can bridge from all the other writings of Plato, which in their philosophical positions display remarkable agreement, M. in his conclusion envisages only two possible solutions of the problem he has raised. It appears that he would prefer to resort to the athetesis pronounced by Ast and by Zeller, who later, however, recanted it; but Aristotle's clear and repeated testimony to Plato's authorship gives him pause. The logical but unsatisfactory alternative, however, is, he insists, to admit that Plato in his old age reduced the great conceptions of his prime to trivialities and produced in the Laws an un-intelligent caricature of his own philosophy.

Reading M.'s condensed and complicated arguments consecutively and without prejudice, one is swept along inexorably to the dilemma which is his conclusion; but, if in considering each argument one studies the passages to which it refers and the contexts of those passages and rereads other Platonic contexts which these suggest but to which M. does not refer and remembers too that even in recent years – not to go back to the heroic age of athetesis – arguments not dissimilar to M.'s have led their authors to doubt the authenticity of the *Euthyphro*, the *Protagoras*, the *Sophist*, the *Timaeus*, the *Philebus*, and I know not how many other Platonic works, then, I think, one is likely to question the logical stringency of M.'s ultimate alternative and to conclude that the faults lie rather in his interpretation than in the text so thoroughly condemned. M.'s work, however, is serious and subtle enough to require and to deserve minute and detailed consideration such as the limits of a review preclude. What is given here then is of necessity only a selection, though I hope a fair one, by way of exemplifying his detailed arguments and the criticism that study of them suggests.

With some justice M. complains (100) that F. Müller and Theiler instead of investigating the style of the Laws began with what appear to be stylistic anomalies in the *Epinomis* and, having found in the Laws passages which by contrast to these represent «normal Platonic usage», concluded that the two works are stylistically heterogeneous. Yet in fact M.'s own method is open to a similar objection, for he seeks out in the Laws other passages which, he contends, match the stylistic anomalies of the *Epinomis* and from this concludes that the style of the two works is homogeneous. He does not deny that «normal Platonic usage» also is to be found in the Laws; but, if the same man wrote both the 'normal' and the 'anomalous' passages of the Laws, why could he not also have written the 'anomalous' passages of the Laws and the 'normal' style of the earlier dialogues? To give his stylistic argument any cogency at all M. would have had to prove

at least that the anomalies of the Laws are normal both for that work and for the Epinomis and are abnormal for all the earlier dialogues. That could be done only by a complicated and exhaustive statistical study,¹ and even such proof would not justify the inference that the author of the earlier dialogues could not also have written in the style of the Laws.

M. then at most shows, as Taylor had done, that some stylistic characteristics called peculiar to the Epinomis by F. Müller and Theiler can be found in the Laws as well. When he contends, however, that these or other characteristics are common to the Laws and the Epinomis but peculiar to them in contrast to the other dialogues, he often falls into errors more significant than theirs.

One which he discovered himself too late to delete from his text but honestly acknowledged in a footnote is a fair example. F. Müller had objected that *ἔρωτα ἔσχεν τοῦ καταμαθεῖν* in Epinomis 986 C 6 is un-Platonic in construction and in its reduction of *ἔρωσ* to the level of *ἐπιθυμία*. M. (104) agreed but argued that this is in accord with what he conceives to be the shallow conception of *ἔρωσ* in Laws 837 A ff; – and then too late he found the same construction used in Symposium 206 A.² Yet he does not withdraw his contention that *ἀγών τοῦ δοκεῖν* (Epinomis 975 A 3), while un-Platonic,³ is matched by the use of *παράδειγμα* with the genitive of the articular infinitive in Laws 862 E 5 and 876 E 3, where «*παράδειγμα* scheint gegenüber Gorg. 525 b zu ‘Warnung’ verblaßt» (104). The implication is that this phrase is un-Platonic both in construction and in meaning. In both respects, however, it is perfectly good Attic Greek,⁴ and there is no reason why Plato should not have used it. M. seems to think that *παράδειγμα* used to mean anything but ‘ideal original’ is un-Platonic; but in the Republic itself Plato, treating the phenomenal heavens as analogous to a geometrical diagram, says that they should be used as *παραδείγματα* of the reality to which he contrasts them (529 D 7). He did not invest his own ‘technical terms’ with the sacrosanctity that his more rigid expounders give them but clearly felt free to use them at any time in their ordinary Greek meanings as well. Misunderstanding of this freedom with which he employs his vocabulary accounts for much of what M. castigates as un-Platonic expression and self-contradiction in the Laws. Much more that he criticizes is objectionable only in his interpretation. So, for example, *διπλασίω ἐλάττω* (743 A 8) he calls «grossly illogical» (120²), whereas it is idiomatic Greek;⁵ and *πατρός . . . δουλείαν καὶ νουθέτησιν* (701 B 7), which shocks him as being «an awful zeugma» (115), is not a zeugma at all, for the genitive is subjective with both nouns.⁶

A far more serious error of this kind, because it directly affects the philosophical interpretation, is M.’s statement (106): «Wegen der philosophischen Nivellierung ist auch *ὄντως ὄν*, Terminus der Ideenwelt, von Diesseitigem gebraucht, und zwar ebenso

¹ In fairness it must be said that M. desiderates such an investigation and recognizes that his arguments may be defective for lack of an exhaustive stylistic comparison of the Laws and the other late Platonic dialogues (101 and 111²).

² *ὁ ἔρωσ τοῦ τὸ ἀγαθὸν αὐτῷ εἶναι ἀεὶ* which M. (104¹) quotes imperfectly. A parallel even closer grammatically and more devastating in its implications for M.’s argument is Symposium 208 C 4–5: *ἔρωτι τοῦ ὀνομαστοῦ γενέσθαι*.

³ To meet this contention of F. Müller’s Taylor (Plato and the Authorship of the Epinomis 26) had cited Republic 608 B 4–5, where, however, the infinitive is appositional and not dependent upon *ἀγών*.

⁴ Cf. Lysias 27, 5: *παράδειγμα τοῦ μὴ ὁμᾶς ἀδοκεῖν*.

⁵ Cf. Demosthenes 27 (In Aphobum 1), 52, where one part in relation to two parts is called *διπλασίως ἐλάττω*.

⁶ M. apparently forgot that *δουλεία* takes a subjective genitive of the master (cf. Republic 569 C 1 and 3; Thucydides 1, 8, 3). The phrase here means simply: the domination and admonition of parents and elders.

Epinomis 985 C 1, 987 C 1 wie Nomoi 722 E 1, 963 D 1 (von den Tugenden, deren zwei ungeistig sind). Auch die Seele könnte vom Standpunkt der Ideenlehre aus nicht einfach ein *ὄντως ὄν* sein, wie sie es Nomoi 959 B ist.» The truth is that in none of these three passages of the Laws is anything called 'simply an *ὄντως ὄν*'. In 722 E 1 τῶν ὄντως νόμων ὄντων is contrasted to λεγομένων νόμων. In 936 D 1 it is said that we call courage, wisdom, and the other two 'virtue' ὡς ὄντως ὄντα οὐ πολλὰ ἀλλ' ἐν τοῦτο μόνον, ἀρετήν. In 959 B the nomothete is made to say τὸν ὄντα ἡμῶν ἑκαστον ὄντως, ἀθάνατον εἶναι ψυχὴν ἐπονομαζόμενον, . . . ἀπιέναι.¹ The expression and meaning are the same as in ὄντως ὄν ψεύδος (Sophist 266 E 1) and ἐπιστήμων ὄντως ὢν (Politicus 301 B 5). In all these cases the participle is copulative, not existential; and none of them implies the ascription of 'real being' to anything other than the ideas.² Since even in such simple matters the idiom of an ancient author is so easily misunderstood, in the really subtle and complicated questions of style we might all with reason put less confidence than is customary in our «Organ für platonische Sprachkunst».

There are more substantive reasons, however, for doubting Plato's authorship of the Epinomis and M.'s connection of it with the Laws. Aristotle calls the Laws Plato's,³ and this is as decisive for the authorship of that work as any evidence could be; and in the light of this his silence concerning the Epinomis⁴ adds some weight to the ancient opinion that this dialogue is not Plato's.⁵ Moreover, at least two doctrinal statements in the Epinomis seem to be at variance with the Laws.

Epinomis 981 B 5-7 states that nothing except soul can be ἀσώματον . . . καὶ χρῶμα οὐδὲν οὐδαμῶς οὐδέποτε ἔχον, and 983 D 2-3 emphatically repeats that τὰ ὄντα εἶναι δύο, τὸ μὲν ψυχὴν, τὸ δὲ σῶμα, . . . καὶ τρίτον ἄλλο οὐδὲν κοινὸν οὐδενί. This looks like a categorical denial of the existence of ideas.⁶ That is very different even from M.'s conception of the Laws as retaining the formulae of the doctrine of ideas, though having lost its profound meaning. To be sure, M. contends (92) that in Laws 898 E 2 also the psychical alone remains as the sphere of the νοητόν. That passage says nothing, however, about the 'sphere of the intelligible', its nature, or its extent. It simply states that, while the soul is not susceptible of apprehension by the senses, one can hope that it is νοητόν, i. e. apprehensible by thought or reason. The sense in which νοητόν is meant is clearly

¹ This only puts concisely what is said in Phaedo 115 C-E; cf. Republic 469 D-E.

² Neither does Epinomis 987 C 1 (ἡ ὄντως οὐσα σοφία). Epinomis 985 C 1, however, is questionable. If τούτων δὲ τῶν πέντε ὄντως ὄντων ζώων means, as Harward and Robin translate it, 'since these five kinds of living beings are real existences' (i. e. ὄντως ὄντα), it does transfer to what are not ideas a term reserved by Plato to ideas alone; but it may rather mean 'since these five are really living beings', in which case it too would prove nothing either way.

³ By name in Politics 1266 B 5 and 1271 B 1; by clear implication in Politics 1264 B 26 ff.

⁴ The attempts of Taylor and Harward to identify certain remarks of Aristotle's as references to the Epinomis are all illusory (cf. von Fritz, RE XIX 2, 1938, 2361).

⁵ Diogenes Laertius, 3, 37, and Suidas s. v. φιλόσοφος. This must depend upon a genuine tradition at least. Proclus' arguments against Plato's authorship (Olympiodorus, Prolegomena 25 [p. 218, Hermann]; cf. Proclus, In Rem Publicam, p. 134, 5 ff [Kroll]) I leave aside; the second rests upon a misconception, but the first is not so bad as Taylor and Harward suppose.

⁶ The mention of χρῶμα in 981 B 6 may be a direct reply to the characterization of the ideas as ἀχρώματος . . . οὐσία in Phaedrus 247 C 6-7. Or does it derive from a misconstruction of that passage in which ψυχῆς was taken to depend upon οὐσία? Cf. Stobaeus, 1, p. 320, 20-21 (Wachsmuth) and the strange text of B, which implies such an interpretation (cf. Alline, Histoire du Texte de Platon, 225).

indicated in the context, and there is no reason to suppose that its employment implies the substitution of soul for the ideas.¹

Nor is the doctrine of the *Epinomis* that ether is a fifth simple body different from fire and air, situated between these two in the cosmos (984 B–C), and corresponding to one of the five regular solids (981 B–C) so easily reconciled with the *Laws* and the *Timaeus* as M. supposes (48–49). Like Harward he contends that the list of fire, water, earth, and air without mention of ether in *Laws* 889 B and 891 C occurs in a polemical passage and so need not represent Plato's own doctrine, that after Plato had in the *Timaeus* identified four simple bodies with four of the regular solids and omitted the dodecahedron from this scheme it would have been natural for him to complete it by assuming a fifth simple body to correspond to the dodecahedron, and that the testimony of Xenocrates shows that he did so. Now according to this testimony of Xenocrates, which was so understood by Simplicius, who alone preserves it,² Plato assigned the dodecahedron to a fifth simple body, ether, which he located 'above' or 'outside' the sphere of fire, the dodecahedron thus remaining in the same relative position given to it in *Timaeus* 55 C 4–6 where it is assigned to the universe as a whole. In the *Epinomis*, however, the ether is situated between fire and air, the position that both the *Timaeus* and the *Phaedo* give to an *αἰθήρ* which is not a fifth simple body but only the purest kind of air.³ This difference between the *Epinomis* and the testimony of Xenocrates is far from trifling, for, since the regular solid which the *Epinomis* assigns to ether could still be only the dodecahedron and since the faces of this figure cannot be constructed out of Plato's two elementary triangles, the location of such a fifth body between fire and air would prevent the mutual interchange and transmutation of their corpuscles and so would disrupt the rationale of the 'stereometric atomism' of the *Timaeus*. The *Epinomis* therefore not only is not supported in this matter by the testimony of Xenocrates, but it introduces a fatal contradiction into Platonic doctrine for which Plato even in senility could scarcely have been responsible. It has every appearance of a slipshod attempt to read into the *Timaeus* a doctrine of Aristotle's without noticing the havoc that its interpretation would create.⁴

¹ The very use of *διανόημα* as equivalent to *νοῦς* (E 2–3) indicates that *νοητόν* is not intended to have any 'metaphysical' significance here. In support of his interpretation M. cites (92) not only *Epinomis* 981 C 3 but also *Timaeus* 90 D, where he believes (cf. also M. 83) that the reference to the celestial revolutions as *τῷ κατανοούμενῳ* shows a tendency to substitute a psychical *νοητόν* for the genuine *νοητόν*, i. e. the ideas; but he overlooks the fact that in the *Phaedrus* itself (270 C) Plato can say *ψυχὴν φύσιν . . . κατανοῆσαι*. This alone shows that the idiomatic use of *νοεῖν* and its derivatives does not justify such inferences as M.'s concerning the status of the doctrine of ideas (cf. also *κατανόησις νοσημάτων* [*Timaeus* 81 C 1], *οὔτε ἰδόντες οὔτε ἰκανῶς νοήσαντες θεόν* [*Phaedrus* 246 C 7], *ὁ νόμος . . . ὃν καὶ ὄντα νοητόν . . .* [*Republic* 532 A 1–2] i. e. the process of dialectic called *νοητός*). So in *Timaeus* 37 A 1 *τῶν νοητῶν ἀεὶ τε ὄντων*, even if it depends upon *ὅτι τοῦ ἀπείρου*, does not prove, as he thinks, that the demiurge is the idea of good; every other statement of Plato's prohibits such an identification, and there is no reason why *νοητῶν* here should not be given the sense that it clearly has in *Laws* 898 E.

² Xenocrates, Fr. 53 (Heinze) = Simplicius, *Phys.*, p. 1165, 33–39 and *De Caelo*, p. 12, 21–27. p. 87, 20–26.

³ *Timaeus* 58 C–D and *Phaedo* 109 B. 109 E. 111 A 7 ff. (cf. *AJPh* 57, 1936, 372).

⁴ Besides the cosmic position of ether, the remarks of *Epinomis* 981 D 4 – E 1 and 984 C 1–2 show that the passage was written with the *Timaeus* in mind (cf. 40 A 2–3). Xenocrates' own statement seems to be just a different attempt to read Aristotelian doctrine back into the *Timaeus*. Neither the quotation nor its context in Simplicius suggests that the identification of the dodecahedron and ether was developed by Plato in his old age or expounded in his 'oral teaching', and Simplicius himself quotes Xenocrates in connection with *Timaeus* 55 C 4–6 (*Phys.*, p. 1165, 27–33 and *De Caelo*, p. 12, 16–20; p. 87, 17–22). In saying that Plato divided the *ζῶα* until he arrived at

Perhaps the decisive point, however, in the relation of the *Epinomis* to the *Laws* is the meaning of *Laws* 968 C – 969.

M. insists (30–40) that this passage clearly promises a further conversation concerning wisdom and the highest education and that the *Epinomis* fulfils this promise exactly. Such a conversation is provided for, he believes, by the Athenian's statement at 968 C 3–7, which he interprets (30–31) as follows: *Laws* can be made concerning the establishment of the nocturnal council (i. e. its authority and its scientific education) only after its institution, at which time its constitutional powers will be codified; but what can be done for the provision of this council now (with stress on *ἤδη*, which can mean only «jetzt, d. h. vor der realen Gründung») can, if it is to be right, be only «Belehrung mit langem Zusammensein». Yet the logic of this, not to speak of its grammar, is worse than obscure. If, as M. insists, the *διδασχὴ μετὰ συνουσίας* of C 6, which is to contribute «zur Ausrüstung (fast gleich Erziehung) dieses Rates», means further treatment of the subject by the speakers in this dialogue before the institution of the council, why should they not first acquire the instruction of such conversation, then legislate concerning the council, and thereafter establish it? Why should they or anyone be in a better position to codify the requisite education or the powers of that body after it has been established than before its institution? Now, 968 C 3–7 is intended to be puzzling, for Clinias is made to ask the Athenian what it means. The answer to this question (968 C 9 – E 5) states that one would have 1) to draw up a list of suitable candidates for the councillorship, 2) to determine the subjects of their study, and 3) to fix the periods appointed for each subject; and it indicates that each of these steps involves great difficulty. The difficulty of the first is implied by the criteria mentioned; it is said to be hard to discover the second by oneself or to find another from whom one can learn it; and the third can be ascertained only by those who going through the course themselves have got into their souls the resulting knowledge. In other words, regulations concerning the education that is prerequisite for the council can be made only by one who has had that education himself. It is this that explains the paradox put in 968 C 3–7: 'Legislation is no longer possible about such matters [as those concerning the council] until it has been organized, and then it is possible for masters of what they must become masters to do the legislating;¹ but training of that kind, if done right, would already amount to schooling by long association.' That in the light of what follows means: We have reached the end of legislation because the organisation of the council, which would be the first step in any further legislation, already amounts to the education of councillors and only those who have had that education – and are therefore in fact councillors – are masters of what must be known in order to legislate about it. Far from a promise of further discussion, the only possible 'further treat-

τὰ πάντων στοιχεῖα τῶν ζώων, Xenocrates probably had in mind *Timaeus* 39 E – 40 A. There are there only four classes of living beings within the cosmos, each predominantly composed of one of the four simple bodies; but, since the cosmos itself is also a ζῷον (30 D. 33 B. 37 C etc.) and the dodecahedron is assigned to it as the other four regular solids are to the four simple bodies (55 C 4–6), it would be in accord with Xenocrates' method of interpreting the *Timaeus* if from this he had simply inferred that the ζῷον with the figure of the dodecahedron must have been meant to consist of a fifth simple body and that therefore Plato had by implication anticipated Aristotle's doctrine of ether.

¹ I take *κυρίους ὧν αὐτοὺς δεῖ γίνεσθαι* to be the subject of *νομοθετεῖν* in 968 C 5. This is certainly more natural than Ritter's expedient, which England found «very attractive» and Bury apparently adopted. M. himself (30¹) recognizes that the clause may refer to knowledge rather than to constitutional authority; but he obviously makes it object of *νομοθετεῖν* for which he apparently supplies *ἡμᾶς* as subject (so Stallbaum explicitly and Apelt and Taylor by implication). The logical difficulty of such a construction I have already pointed out; the grammatical difficulty of it seems to me to be no less.

ment' envisaged here is the activity of educating the future councillors. This is what the διδασχὴ μετὰ συνουσίας πολλῆς (968 C 6) clearly means; and in concluding his explanation of the difficulties involved in instituting this education the Athenian expressly says that these matters cannot be clarified beforehand and so, while not ἀπόρρητα, are ἀπόρρητα (968 E 2-5).¹ The fiction of the dialogue requires, of course, that the projected Cretan colony should not be abandoned, and consequently the organization of the council must somehow be undertaken. That is why in 969 A 1-3 the Athenian agrees to share with his interlocutors the risk involved in the exposition of his notions concerning the education and training about which they have been speaking. This means not that he proposes to join them in another dialogue supplementary to the Laws – such a conversation could not present the great hazard that he so solemnly emphasizes (968 E 7 ff, 969 A 3-4), but that he proposes to associate himself with them in selecting the candidates and helping to train them for the councillorship (969 B 1-2 and B 8 ff); and that his interlocutors so understand his offer is clear from their response – not that they will meet him for another talk but that they must make him their associate in the foundation of the city (969 C 4 ff).

M.'s attempt to show (36-37) that the conclusion of the Epinomis fulfils a promise made in Laws 968 D-E to resolve the difficulties there mentioned only proves that the author of the Epinomis misunderstood or chose to misinterpret the conclusion of the Laws in the same sense as he does.

Epinomis 989 E 1 – 992 A is supposed to explain what subjects are to be studied, the second difficulty mentioned in the Laws (968 D 3-4). The first step (Laws 968 C 9 – D 3) is according to M. taken by Epinomis 989 B 4 – D 7, where the characteristics of the 'best natures' are described; but this is not in fact the desideratum of Laws 968 C 9 – D 3, for καταλεχτέος ἂν εἴη κατάλογος τῶν ὅσοι ἐπιτήδευοι κτλ. means not any such theoretical account of the characteristics that candidates should have but a list of those individuals who according to the criteria mentioned are suitable candidates.² The third point (Laws 968 D 4 – E 2), M. says, «soll sich ja mit der Sache ergeben und fällt weg»; but the Laws connects this third point not with the subject but with the learner and precisely in this connection explains why the course of education cannot be prescribed by anyone who has not himself gone through it. The omission of this point in the Epinomis proves that the author misunderstood its implications or else recognized that it denies the possibility of such a supplement to the Laws as he professes to give.³

¹ ἀπόρρητα in E 4, Ast's correction of ἀπόρρητα, which was mistakenly repeated from the preceding line, is guaranteed by what precedes and what follows it in the sentence. The correction has been adopted by all editors. M. himself accepts it without question (31-32); and yet later he says that in this passage the highest knowledge is spoken of «geheimnisvoll» and as «Geheimwissenschaft» (33 and 39). Such a statement is just the opposite of the fact and suggests that M. in making it either mistakenly read ἀπόρρητα in E 4 or had forgotten or confused the context of ἀπόρρητα in E 3.

² This is the only possible meaning of the words; and they are regularly interpreted so, even though the implication of their meaning is unobserved (cf. Ritter, Darstellung 126: 'die Männer tatsächlich zu finden' etc., the translations of Apelt, Taylor, Bury, and Robin, and England's Analysis in The Laws of Plato 1, 48). M. himself (31) where he is paraphrasing this passage without reference to the Epinomis so understands them: «Erstens muß eine Liste aller derer aufgestellt werden die geschaffen sind zur Eignung für das Wächteramt nach Alter . . . ». If further proof were necessary, ἡλικίας (968 D 1), which the Epinomis neglects, would provide it; and it is borne out by ἐὰν ἄρα ἡμῖν οἱ τε ἄνδρες ἀκριβῶς ἐκλεχθῶσι (969 B 8).

³ The syntax of the last clause of the Epinomis (992 D 7 ff) being highly uncertain, it can only be said that, if either M.'s interpretation of it (41 f) or that of Harward or Robin is correct, it implies that the first council at least consists of members who have

One must therefore disallow as at least inconclusive the evidence which M. adduces from the *Epinomis* to support his interpretation of the philosophy of the *Laws*.¹ The keystone of this interpretation is the thesis that in the *Laws* the doctrine of ideas has been replaced by a pietistic astronomy which is identified with virtue and reduced to an ancillary method the objects of which are mere concepts.

The examples which M. cites to prove that expressions hitherto used by Plato for the real being of ideas are in the *Laws* used of objects other than ideas I have already shown (p. 371 *supra*) to exist only by virtue of grammatical misconstruction or misapprehension of Platonic usage.

The crucial passage for M.'s interpretation is, however, *Laws* 962 B – 968 A, the discussion of the *σχοπός* which leads directly to the conclusion just discussed concerning the education of the council. Here the subject-matter of the dialogue at last constrains the Athenian to face the question of the criterion that the councillors must know and apply in the fulfilment of their function as guardians and preservers of the state. M. does not deny that the formulae with which this passage operates are those of the doctrine of ideas. His contention is rather that they have now entirely lost their genuinely Platonic content and significance and are merely an unsloughed cocoon of outworn expressions tending to conceal a different system of thought which its author has not yet worked out in a thoroughly integrated fashion and cannot consistently express.²

Apart from the contention that the whole passage is confused and clumsy, M.'s only serious argument in support of his interpretation is (26) that, although in many places and especially in 965 C and 966 A it would seem that a metaphysical entity is implied, the question concerning the *ἐν* to be sought is never answered and 964 A 5 ff shows that what is really required, the ability to give a definition, does not imply the doctrine of ideas, for 895 D gives a clear example of what this means in the *Laws*. There «von der Wesenheit (οὐσία) Seele gibt es den Namen, aber auch den Logos: sich selbst bewegende Bewegung. Dazu ist also gar kein Eidos nötig, man kann das schon Begriff nennen.» Apparently, since in the *Laws* the author presumes to give a 'logos' of soul, which is not an 'eidos', when he requires the councillors to know the 'logos' of virtue, the beautiful, the good, etc. (964 A 5 ff, 966 A–B), he must not any longer understand the objects of knowledge to be ideas in the genuine Platonic sense.

not yet had the education which the *Laws* declares prerequisite for all councillors, another indication that the author of the *Epinomis* misunderstood or disregarded the meaning of the conclusion of the *Laws*.

¹ Even if M.'s principle (46) that the *Epinomis* is always an authoritative guide in interpreting the *Laws* were admitted, his employment of it would be objectionable. Witness his use (39) of *Epinomis* 977 B 3, 988 B 1–2, and 989 D 4 to read into τοῖς ἔργοις συνακολουθεῖν (*Laws* 966 B 7), which is simple and clear in its own context, a covert intention incompatible with that context, and his comparison (38) of *Epinomis* 991 C 3–4 with the next phrase in that passage of the *Laws*, which he misquotes for his purpose, altering γινόμενα to λεγόμενα and omitting κατὰ φύσιν. The most important and amazing example of all is his conflation (36) of various unrelated passages of the *Epinomis* and the *Laws* to produce the portentous equation: φρόνησις = σοφία = εὐσέβεια (θεοσέβεια) = πᾶσα ἀρετή = παιδεία = συμφωνία = ἀστρονομία = πίστις.

² Since in this respect as in others M. distinguishes the *Laws* from all the earlier Platonic dialogues (e. g. 45 f: «Die Trennungslinie liegt philosophisch . . . vor den Nomoi, in denen Eidos und Arete, bis dahin die Grundpfeiler des platonischen Philosophierens, entmachtet und unmerklich von neuen Gehalten verdrängt sind»), his interpretation is in a way the very opposite to that of interpreters like Kucharski (*Les Chemins du Savoir dans les Derniers Dialogues de Platon*, Paris, 1949), for whom the conception of *ἰδέα* in the later dialogues including the *Laws* is different from that of *εἶδος* in the earlier dialogues. Kucharski's interpretation, while more subtle and more illuminating than M.'s, is, I think, no less erroneous.

To this the first obvious reply is that even in Socrates' second speech in the *Phaedrus*, which for M. (e. g. 23) is a typical expression of the genuine theory of ideas, self-motion is declared to be *ψυχῆς οὐσία τε καὶ λόγος* (245 E 3);¹ and the second is that M. has neglected the relation of the soul as self-motion to the idea of motion itself.² The necessity that the councillors know the 'logos' of virtue (964 A 5 – 965 A 4) was introduced by the old puzzle as to how virtue is one though four (963 A 6 – 964 A 5), which was suggested by the need of a council to keep steadily in view the single end of the state, virtue (962 A 9 – 963 A 5); and from the necessity that they have exact knowledge of the 'logos' of virtue the Athenian infers that they require a more exacting education (965 A 5 – B 3), one that will enable them *πρὸς μίαν ἰδέαν ἐκ τῶν πολλῶν καὶ ἀνομοίων . . . βλέπειν* and so to see exactly what the unity of virtue is, to do the same concerning the beautiful and the good, and in the case of all serious things to know the truth, to be able to give an account of it, and to follow it out in action (965 B 4–966 B 9). So the ability to give a 'logos' is said to depend upon a kind of knowledge which is described in language everywhere else used only in connection with the doctrine of ideas.³

Nor in what follows is there anything to justify M.'s contention that this knowledge is confused with astronomy. The Athenian says (966 C 1 – 967 D 2) that one of the fairest subjects⁴ of which the councillors must master every proof⁵ is the existence and power of the gods, that the two propositions which lead to this proof are those of the soul's primacy over mobile objects and of mind's governance of the orderly motion of the heavenly bodies, and that astronomy, if properly studied, supports these propositions and does not lead to atheism as is popularly supposed. M. (27–29) identifies these two propositions with astronomy on the one hand and with piety on the other and then says that in the 'summary' (967 D 4 ff) astronomy is no longer treated as a propaedeutic

¹ Cf. also *Sophist* 218 B 6 – C 5: the 'name', 'thing', and 'logos' of 'sophist'; and 221 B 1–2 of 'angling'.

² For this relation cf. Cherniss, *Aristotle's Criticism of Plato and the Academy* I, 433–442. M. (79) has an inkling that the third proof in the *Phaedo* involves the conception of self-motion, but he erroneously identifies self-motion with the idea of life.

³ The phrase *πρὸς ἓν βλέπειν* (for which cf. *Euthyphro* 6 E, *Cratylus* 389 A–B, *Republic* 596 A–B, *Phaedrus* 265 D, etc.) runs through the passage like a dominant theme. Prepared in 962 D 4 and 963 A 2–4, it is employed in the figure of the craftsman and applied to the statesman (963 A 11 – B 7), is resumed in this figure and generalized (965 B 6–10), culminates in the emphatic assertion that in all cases the most accurate *σύνψις θεῶν τε* is *πρὸς μίαν ἰδέαν . . . βλέπειν* (965 C 1–6), and is repeated as the desideratum to be specified in the education of the councillors (965 D 5 – E 2). M. contends (28) that *τὸ πρὸς μίαν ἰδέαν βλέπειν* of 965 C simply passes into *λόγῳ ἐνδείκνυσθαι* and *λόγῳ ἐρμηνεύειν* in 966 B by which time the *σύνψις* implied in 965 C is forgotten (27) and that *λόγον δοῦναι* in 967 E 4 f confirms this interpretation by reducing dialectic to the merely ancillary function of giving a definition (29). In fact, however, in 966 B the 'synoptic knowledge' is represented by *ἐνωσεῖν* and *εἰδέναι τὰ περὶ τὴν ἀλήθειαν πάντων τῶν σπουδαίων*, to which respectively *τὴν ἐνδειξὶν τῷ λόγῳ ἐνδείκνυσθαι* and *λόγῳ ἐρμηνεύειν* are added; and these additions are typically Platonic, for knowledge implies the ability to give an account of what is known (cf. *Laches* 190 C 6, *Philebus* 62 A), so that dialectic is commonly represented as the ability *λόγον δίδόναι καὶ δέχεσθαι* (cf. *Republic* 531 E, 534 B; *Politicus* 286 A). On 967 E see further note 1 p. 377 *infra*.

⁴ M. refuses to allow *ἐν τῶν καλλίστων* to mean what it says. For him (27) it is «ironisch abgeschwächt» (though elsewhere [117¹] he denies that there is any irony at all in the *Laws*!) and really means the «schlechthin wichtige Gegenstand»; so *πάντων τῶν σπουδαίων* really means nothing but this one object, astronomy, for which it was merely a «veiled expression» and to which consequently he automatically transfers everything that was said of them in the text.

⁵ For *πίστις* (966 C 7) in this sense, which to M. (27¹) is evidence of the general shift from the values of the *Republic*, cf. *Phaedo* 70 B 2, *Philebus* 50 C 11.

study but is lifted to the highest position, thus replacing dialectic. The text, however, explicitly associates astronomy with its related propaedeutic sciences (967 A 2-3, cf. 817 E 5 - 818 A 3) and throughout the passage merely defends it as a means of supporting the two propositions which in turn lead to the proof of the existence of the gods. These propositions are nowhere identified either with astronomy or with piety. Their restatement at the beginning of the 'summary' (967 D 4 - E 1) as propositions, the understanding of which alone can confirm a man in true piety, serves at the same time as a transition to a recapitulation of the kind of training without which no one can be an adequate ruler of the state (967 E). Astronomy is in fact not mentioned in the summary at all and must be understood as included in the propaedeutic studies referred to merely as such (E 1-2).¹

M.'s notion that the author of this passage had forgotten or did not understand the original meaning of the terminology that he employed or that he covertly used it in a new and improper sense is uncalled for by the text and so is methodologically unacceptable. Since there is no reason to doubt that Plato wrote the Laws, there is no reason to suspect that he was unaware of the implications of the phraseology that he had hitherto used in connection with the doctrine of ideas; and, since he puts such emphasis upon the phraseology and the formulae here, he must have done so purposely and purposely refrained from making the implications explicit as he had done in the Republic. The Laws is not the only dialogue in which such a method is used, and in all such cases the purpose of it must be sought in the dialectical situation. In the case of the Laws this dialectical situation is indicated by the fact that the crucial exposition of 962 B - 968 A is called forth by the problem of preserving the state (960 B 5 - 962 B) and culminates in the paradox of the education of the councillors (968 B-E). Aristotle says that, though the constitution of the Laws was intended to be more suitable to actual states than that of the Republic, it gradually comes round to the same thing; and his evidence for this is first of all the identity of the education prescribed in both works (Politics 1265 A 2-7). Aristotle's treatment of the Laws is notoriously careless and inaccurate, but his interpretations even when demonstrably mistaken can be illuminating if properly analysed; and this remark of his shows at least that Plato's associates did not suspect him of having abandoned the philo-

¹ The following clause, *τά τε κατὰ τὴν μουσικὴν τοῦτοις τῆς κοινωνίας συνθεασάμενος*, has puzzled interpreters, M. included (29 and 38), because they have assumed that it refers to music, which should be included, however, in the propaedeutic disciplines just mentioned. I think that *τὴν μουσικὴν* here signifies not 'music' but 'philosophy' as it does in Republic 499 D 3-4 (cf. Republic 548 B 8 f, Philebus 67 B 6, the etymology of Cratylus 406 A with Phaedo 61 A 3, and *τῇ τῆς βασιλικῆς μουσῇ* in Politicus 309 D) and that the clause means: 'and having got a synoptic view of the community that belongs to these studies according to philosophy', i. e. of what is common to all the propaedeutic sciences when considered philosophically (cf. Republic 531 D 1-3 and 537 C 1-3). This then refers to the 'synopsis' which M. professes to miss in the passage, and with 967 E 4 f it matches exactly the two stages described in Republic 531 C 9 - D 4 and E 4 ff. As to the text of 967 D 4 - 968 A 1, *δύο λάβῃ* in D 5 referring to *ψυχὴ τε ... πάντων* and *τόν τε ... τῶν ὄντων* indicates that *ἐπὶ δὲ τοῦτοις δὴ, τὸ νῦν εἰρημένον πολλάκις* is out of place. These words should be transposed to follow *τῶν ὄντων*, which among other advantages would make the repetition of *λάβῃ* in E 2 more natural.

sophical position of the Republic when he wrote the Laws and that they recognized in the culmination of the Laws the education of the 'true guardians' of the Republic. On the other hand, the suggestion that Plato brings the Laws round to this position against his own original intention is demonstrably a false explanation of the author's procedure, for not only is the later treatment of the councillors' higher education clearly referred to in the seventh book (818 A and D) but also what in the first book amounts to the programme or model of the whole work culminates in the necessity of such a council as is described in the twelfth (632 C, cf. 964 E – 965 A). The discourse which seems to wander as it lists does so in obedience to the subtle purpose of its author; and, as in other cases this purpose is to show that wherever the 'logos' begins and whatever course it takes it ends either in an impasse or in the doctrine of ideas,¹ so, whatever other partial motives are operative in the Laws, the purpose to which the course of the dialogue as a whole is set is the proof that even a 'second best' state, if it is to be preserved, implies the rule of those who, practised in dialectic, can guide it by the absolute criteria which are the ideas.²

If this be true, the production of the Laws does not indicate that Plato had surrendered or substantially altered either the philosophical or the political principles of the Republic; the Laws would be only a different way of approach to the same conclusion. This would seem to be supported by the references to the 'first' or 'best' constitution in comparison with which that of the Laws is declared to be only 'second best' and which, M. agrees, is meant to be the constitution of the Republic (Laws 711 D – 712 A, 739 A–E, 875 C–D). M. insists, however, that these very references betray a complete misunderstanding of the Republic's political ideal. In proof of this the argument on which he lays most stress is that these passages characterize the constitution of the Republic only by its institutions and neglect the philosophical conversion that is the essence of its political reform and the guardians' vision of the ideas on which the whole constitution depends; and this misunderstanding of the 'ideal' character of the Republic is responsible for what he conceives to be the inconsistent attitude of the Laws toward that 'best state' and the self-contradiction of its own political ideal. M. appears to forget, however, that the Timaeus too,

¹ E. g. the Theatetus and the Protagoras. M. himself (64³) appears to understand the latter in this sense; for the Theaetetus cf. *AJPh* 57, 1936, 451 and F. M. Cornford, *Plato's Theory of Knowledge*, 162–3.

² The ideas are implied or referred to by inference here and there through the body of the work: e. g. in 897 B and 818 A–D, on which cf. Aristotle's *Criticism of Plato and the Academy* I, 607 and 608–9, and 904 A 8 (ἀνώλεθρον . . . ἀλλ' οὐκ αἰώνιον), on which cf. Frutiger, *Les Mythes de Platon*, 128¹. M.'s objections (85–87) to this last passage are entirely invalid, depending upon misconceptions not the least of which is that in genuine Platonism 'corporeality' (i. e. phenomenal objects) is non-existent (see contra Republic 479 B–D and Timaeus 52 A and C 4–5). No more can be said for M.'s contention (34⁴) that 746 A 7–8 and 969 B 5–6 show that in the Laws, contrary to the Republic, «waking belongs to reality, dreaming to the mere 'idea'»; the same mode of expression is used in Republic 443 B 7, cf. also Cratylus 439 C 7.

in which the doctrine of ideas is clearly expounded and emphatically adopted, begins with what Socrates declares to be a complete summary of an earlier description which he had given of the 'best state' (Timaeus 17 C – 19 B) and that here too the summary is limited to the 'external institutions' of the Republic. The situation in the Timaeus and the Laws, though different, in neither case requires at this point an explanation of the reason why the best state has the form it has but only a statement of what that form is. The dialectical situation of the Timaeus is another matter; but a moment's reflection should show why that of the Laws does not allow the Athenian in these references to the 'best state' to develop its internal, philosophical nature. Had he done so, he would have been involved at once in the course that the logos of the Republic itself follows and could not have developed the conclusion to which the logos of the Laws proceeds: that even if we forgo as impractical for human nature the ideal constitution of the Republic and in place of it establish a 'more practical second best' we are in the end forced to recognize that this too requires for its viability and preservation the rule of the very same philosophy as that on which the Republic depends.

There remain unmentioned here many problems, some serious and some merely specious, which M.'s condensed and vigorous study has raised. Exhaustive examination of them will not, I think, confirm the validity of either horn of the dilemma which is his conclusion; but his work should stimulate more serious and careful study of the Laws, for it demonstrates the need of a truly philosophical commentary of this, Plato's longest dialogue.

The Platonic Epistles, Translated with Introduction and Notes
by J. HARWARD. Cambridge University Press, 1932.¹

This translation of the Epistles is prefaced by a lengthy introduction, which, after outlining the history of Sicilian affairs previous to the death of the elder Dionysius, deals with Plato's visits and Dion's expedition. The discussion of the genuineness of the Epistles is prefaced by a note on the letters of Timonides and followed by notes on the Socratic Epistles and the literary style of the Platonic Epistles. The translation is followed by notes on the text and Introductory Remarks concerning the circumstances and genuineness of the several letters.

Mr. Harward accepts all the Epistles except the first as genuine; he also is certain that the letters of Timonides were "the reports of a witness who took part in the events." Without entering the debate over the genuineness of the Epistles, I shall call attention to certain questionable portions of the argument in this book. Again and again we are warned that Demetrius, Plutarch, Cicero, and Bentley, who took the letters for genuine, were better able to judge the matter than we are. But will Harward accept the two "Aristotelian letters" with Plutarch, the "letters of Anacharsis" with Cicero, or the first "Platonic Epistle" with Bentley? And Grote, whose "taste" is supposed to create a presumption in favor of the Epistles, says we must accept everything in the tetralogies. Harward goes so far as to call this "an eccentricity."

The tenor of the whole defense is found on pages 72-75. The Epistles, it is argued, show a character such as Plato's might well have been. This, at best a weak argument without external evidence, leaves us more suspicious when we notice that the details are drawn from Epistle VII *only*. To vindicate the philosophical passages Harward says those who rejected the Epistles were neo-Hegelians who as "mystics" disliked the tone of them and objected to the doctrines that mathematics is a necessary propaedeutic to philosophy and that serious thought is not to be found in books. The *argumentum ad hominem* is utterly false in fact as well as irrelevant. According to Harward's own interpretation the philosophy of the Epistles is more mystical than that of the dialogues; and one who objects to the last two doctrines would athetize the Republic and the Phaedrus sooner than the Epistles. The argument is crowned

¹ This review utilizes marginal notes left by Professor Roger M. Jones and conversations which I had with him about the book shortly before he died.

by the statement that "if the philosophy of the Letters is all wrong, the critics of antiquity . . . would certainly have pointed out the discrepancy." Since these commentators were themselves mystics, Harward has laid himself open to the dialectical rebuttal that it was just because they misunderstood the dialogues that they accepted the Epistles.

The most amusing example of circular argument appears on page 47 and again on page 86. The letters are genuine, for Plato's "narrative gives the facts, as they were known from other sources," the latter passage says; and the former page explicitly names these other sources. They are Plutarch and Nepos, both of whom accepted the Platonic Epistles and used them to write their own stories, as Harward himself knows (p. 80).

Like certain other defenders of the Epistles this author insists that it is not sufficient to "produce evidence that they are not likely to be the work of Plato" but that before rejecting a letter we must show how and why it could have been otherwise written. But Epistle I must be rejected and is rejected by Harward, although he admits that it "must remain an unsolved problem." And how is the existence of the obviously spurious dialogues to be explained? Were they dialogues written as exercises in the Academy and mistakenly inserted in the canon? This is Harward's explanation; but how does he know that it is "probable that the composition of dialogues in the Platonic manner was a form of exercise practiced by students of the Academy in its early days?" From the remarks in the *Phaedrus* about writing—and, even more, from the character Harward gives Plato—it is highly *improbable* that the students were set such exercises. So far as we know, the dialogues written by Plato's pupils were published under their own names; and there is no presumption against the possibility that the *Spuria*—some or all of them—were deliberate forgeries.

The two letters quoted by Diogenes Laertius as written by Archytas did not find their way into the collection of Platonic Epistles; and, since those two letters were probably excerpted "from a collection of fictitious letters," Harward believes that this is an indication that our collection is genuine. But how could a letter *from* Archytas possibly have been taken up into a collection which purported to be not a "Briefwechsel" but letters written *by* Plato? Even Epistle I, if it is a real fourth-century letter, could not get into the canon until the signature was changed.

We should like more evidence than the statement, "there are grounds for supposing," when we read such narratives as that on page 27 which represents Dionysius upholding against Plato a hedonism which "rested on a foundation of materialism."

This is not plausible; to the contrary, since Harward accepts Epistle II, he must know that there Dionysius is said to have agreed with the fundamental doctrines of Platonic idealism, nay even to have claimed the discovery of them as his own. But it is even less plausible that the materialism of Sophist 246 B first met Plato's notice in Syracuse. To take the quarrel of "the friends of the ideas" and "the materialists" as "a reminiscence of controversies at Syracuse between Sicilian or Italian materialists . . . and disciples of the Pythagorean school of Taras" is to betray an utter misconception of Plato's method of recapitulating tendencies in previous philosophy.

The translation of the text is in general an improvement upon previous versions, most of the notorious errors of which Harward has avoided. The verse in 310 A is translated after Burnet's text; but Immisch's conjecture is approved in the notes. However κλίνει is too much a part of the apparatus of luxury to be emended out (cf. Herod. 1, 50; 9, 80; Plat. Com. 208). At any rate the phrase "bring assurance" is not in the Greek and πρὸς ἄνθρωπον can hardly be "in comparison with a man" in Harward's sense. Bury's πρὸς ἀνθρώπων looks more plausible.

In Epistle II the "cryptic passage" at 312 E is considered "the strongest evidence of the genuineness of the letter . . . for the writer was certainly a master of thought and language." Harward claims that Plato in 360 B. C. could truthfully say that his associates "had said nothing against Dionysius." The narrative of Epistle VII, 350 C is softened to this: "Dion had then, no doubt, spoken against Dionysius," and the intimation is that the statement in II is literally true because Dion was not "one of his associates." If such was Plato's attitude, he was, at best, highly disingenuous. In this connection I note Harward's tendency to soften language to rob it of its offensiveness. σημαίνει . . . ὅτι οὐκ ἄρχω ἐγὼ τῶν ἐμῶν ἐπιτηδείων is translated: "signifies that I have no influence over my associates"; δόξαν ἔχων πολὺ τῶν ἐν φιλοσοφίᾳ διαφέρειν becomes "with the reputation of being highly distinguished among those engaged in philosophy."

The sentiment of 310 E 5 that wisdom and power "have a natural tendency to combine" is violently unplatonic, and the quotation from Zimmern in the note is more like Plato than the Epistle is. On 311 E the note says, "Godliness is here identified with the intellectual life." This is not true here nor in the passages cited from the Timaeus and the Laws; the notion throughout is that to philosophize is εὐσεβεία because philosophy is the study of the nature of godliness and so a means to the ὁμοίωσις τῷ θεῷ. τὸ πρᾶγμα τί τὸ ἐμὸν ἔστιν (312 A) is translated "what my system was." In the note on 340 B 8 it is said that τὸ πρᾶγμα "was perhaps part of the current slang of the Academy," and for this

"philosophical meaning" of the phrase several parallels are cited. But in *Phaedo* 61 C and *Theaetetus* 168 B τὸ πρᾶγμα means "philosophy" only because φιλόσοφος immediately precedes it. *Phaedrus* 232 E is no parallel, for there it does not mean "philosophy"; but that passage shows how the phrase was used, like "thing," "business," "matter" in English, to pick up any preceding concept. Here in 312 A, as in *Apology* 20 C, τὸ πρᾶγμα means simply "business," "affair," and in 340 B πᾶν τὸ πρᾶγμα means "the whole subject" and not "philosophy in all its extent."

The "sphere" of 312 D is said to have been an attempt on the part of Dionysius to illustrate by an orrery the movements of the sun, moon, and planets in accordance with the theory of Eudoxus. Since the evidence seems to show that the model of Eudoxus did not illustrate the planetary motions (*Cicero, de Rep.* XIV 21), it is highly improbable that Dionysius ever made a sphere which did.

In 312 D 7 τοῦ πρώτου is certainly not "the soul" but ὁ πάντων βασιλεύς of 312 E 1. The attempt to explain this passage is amusing in view of the fact that the author says he is speaking "in riddles" in order that "he that readeth may not understand." I shall merely point out that the translation at 312 E 5 "looking for things akin to itself" should be "looking at things akin to itself," and that the doctrine, as Harward interprets it, is opposed not only to the dialogues but to *Epistle VII*. For here ultimate realities are not akin to the soul; but *Epistle VII* 342 D says they *are*, and Harward himself in notes 86 and 109 on *Epistle VII* shows that such is also the doctrine of the dialogues. Perhaps οὐδὲν ἱκανῶς ἔχει means not "none of which has real sufficiency" but "none of which it fully grasps" (cf. *Rep.* 477 A, 505 A). This would resolve one difficulty; but we should fall into the same trap at the τοιοῦτον of the next sentence.

At 313 C περὶ τὸ φανταζόμενον is not "in the region of the apparent" but "about the appearance"; and at 314 D 5 ὥς τινες ὑπολαμβάνουσι is "as some imagine," not "as some consider themselves to be."

At 314 A 7 there is a long note which by "parallels" from Luther, James, and Newman defends the "mysticism" of a passage which means only that the doctrine presented is too hard for even an intelligent man to understand without years of study. Harward does not mention Bury's note on the historical difficulty of the "men who studied 30 years." I think the number is lifted from the *Republic* where, from the time men begin higher studies at the age of 20 to the beginning of real philosophical reflection at 50, there is a period of 30 years.

Epistle III, Harward thinks, is a pamphlet intended to con-

vince the "allies" that the claims Dionysius was making concerning his previous intentions are untrue. (It is confusing to read at the top of page 176 that the letter is "addressed to a limited audience" and at the bottom of the same page that it is a "public pamphlet.") In 317 C δὲ σὺ is not "on your behalf" but "at your instigation."

In Epistle VI no mention is made of Professor Shorey's interpretation of καὶ γέρον ὦν at 322 D 5. It is to be found in *Classical Philology* X, pages 87-88. At 323 C αὐτῇ is to be supplied from above with χρῆσθαι. The meaning is "and use it (i. e., the letter) as a compact." The troublesome "oath in jest and earnest" is defended by parallels which show that Plato often coupled "jest" and "earnest"; but I do not see that they intimate any tendency on his part to take an oath about a serious matter with a mixture of earnestness and sport.

Epistle VII, Harward says, is in reality not a letter to Dion's friends, who indeed never asked Plato for advice, but an open letter "not for Sicily but for Athens." The "eccentricities of arrangement" he explains on this ground, and the epistolary form he makes merely a literary device as Bury does. The "philosophical digression" is not explained at length; but in this connection passages from Taylor's article in *Mind* are quoted; and evidently Harward takes that explanation as a final vindication of these passages. At 324 B 8 a note defends the "digression" as "characteristic of the old age of Plato." But if ἔσχεν in 324 A 7 mean not "which he then formed" but "which he acquired" (that is, got from Plato), there is no real digression at all. This Howald seems to have meant in his note on 324 B 5.

At 326 C οὐχ οὕτως θαυμαστῇ φύσει κραθήσεται means "none will be found to possess a nature so admirably compounded." The mixture is hardly one of riotous living and philosophy, as Harward's translation implies. In 327 C αὐτοῦ of A should be read in place of Burnet's αὐτοῦ, and the meaning is "if he himself become such a person." There are slight mistakes which destroy the sense in 332 A 6 and 332 B 6. The first should be: "For Darius, though he trusted men who were not his brothers or his wards but only his confederates, . . ." The second means: "The Athenians maintained their rule for 70 years over many Greek cities which had been attacked by the barbarians, and they did so despite the fact that they had not founded them but had taken them over as existing cities."

At 340 D τροφῆς τῆς καθ' ἡμέραν means "daily fare" and in D 5 ἐν αὐτῇ goes with λογίζεσθαι, not with νήφοντα. At 341 B 4 one translation is given in the text and a very different one in the note. At 341 C 7 the translation, following Taylor, reads: "suddenly a light, as it were, is kindled in one soul by a flame

that leaps to it from another." Certainly there is no intimation of *two* souls in the Greek, and it is doubtful method to insist that two souls must be meant because otherwise the passage "would be Neoplatonic rather than Platonic."

At 342 D I miss a note saying that here there are ideas of artificial objects, a characteristic of the theory of the *Phaedo* and at variance with Aristotle's account; and I wonder why this fact, so damaging to the notion of a "later Platonic doctrine," is slurred over. The meaning of 343 B 2-3 is "and they will be no less permanent for men who shift them around and call them by opposite names"; οὐδὲν ἥττον βεβαίως ἔξουσιν cannot mean "nothing will be less permanent (than a name)."

It is amazing to see in the note on 344 B 3-7 the statement that Socrates' experience in Symposium 220 C-D was a "trance." That ghost I thought had been laid forever; and I wonder, since Harward makes the culmination of the dialectic a mystical experience, why he thought "mystics" disliked the tone of the *Epistles*.

In *Epistle VIII* Harward reasonably argues that the reference to Dion's son cannot be explained by the introduction of the posthumous son and also that Dion's son died before his father's murder. He solves the problem by supposing that Plato had not heard of the death of the son, and to make this supposition he has to assume that no letters were sent to Plato from the time of the boy's death until the Dionean party removed to Leontini (p. 195). But how, then, did Plato know the facts about the crime of Callippus and the alliance of the Dioneans with Hipparinus? For on page 193 it is supposed that this alliance was made before the Dioneans were forced to retire to Leontini and that it was at this time that *Epistle VIII* was written. However, the whole matter is confused when on page 195 it is implied that the coalition was made after the retirement to Leontini (lines 26-27).

In 354 B 7 τῆς βασιλικῆς ἀρχῆς depends on σωτήριον, not on δεσμόν; 354 E 5 should read: "Servitude to God is moderate, that to men is immoderate servitude." At 359 B 4 σύμβασις is said to have become "a Stoic term in the sense of 'occurrences'." The word does not occur, however, in the Stoic fragments at all; and I find it in this sense nowhere except in this *epistle*.

The matter of safeguarding the notes mentioned in *Epistle XIII* Harward believes to refer to an agreement between Plato and Archytas to keep such notes from Dionysius. Then Plato must have suffered a queer change since writing *Epistle II* which contains the same sort of injunction to secrecy on philosophical matters, there addressed to Dionysius who is treated as an initiate and warned to keep Plato's communications from the uninstructed.

In 362 A 4 the introduction of the phrase "on your behalf" after "If I have to incur any public expenditure" is gratuitous; and the note, "There is no doubt that this is the meaning," I cannot accept as an excuse for rewriting a text, even though the text as it stands may make us uncomfortable about the author's character.

The sentence at 362 C 5-7 is rather clumsy Greek; but it means, I think, the following: "Those who bring you reports at each time are unwilling to report anything which they think entails expense."

WERNER JAEGER. *Aristotle, Fundamentals of the History of his Development*. Translated with the author's corrections and additions by Richard Robinson. Oxford, The University Press, 1934. Pp. 410.

The German original of Professor Jaeger's book appeared in 1923; the influence of that work has grown so steadily and spread so far that it is now most unusual to find a study of Aristotle that does not refer to it. The Oxford imprint upon the translation is itself an indication that the book has attained something of the status of a classic; now that English-speaking students will have readier access to Professor Jaeger's work, its influence may be expected to extend itself even more widely than hitherto. For this reason I have deemed it necessary not merely to greet the appearance of the translation but to review the substance in order that those readers who have not followed the course of Aristotelian studies since 1923 may be made aware that the results of Professor Jaeger's investigations are by no means established beyond controversy and in order that the appearance of the translation may serve as a stimulus to further investigation and not be taken to mean that the stamp of orthodoxy has finally been applied to all the book contains.

The translator has turned not only the German but also the Greek quotations of the original into English; for the quotations from Aristotle he has used the Oxford translation and in other cases such standard translations as he could find, but the translations of Iamblichus are his own work. Popular use of the book is thereby facilitated, but the student is hampered by the absence of the Greek text which frequently will bear an interpretation quite different from that given it in the translation before him. So in note 1 on page 35 "sounds" is in the Greek original *τερετίσματα* ("twitterings"), and "in the dialogues also he exclaims unmistakably that he cannot sympathize with this dogma" was in Greek *καὶ ἐν τοῖς διαλόγοις σαφέστατα κεκραγὼς μὴ δύνασθαι κτλ.*; this is an application of English urbanity to translation which has the result, if not the intention, of bolstering up Jaeger's thesis. The stress which Jaeger puts upon the exact interpretation of the reference to Aristotle's attack on the Ideas (in an added paragraph on page 36), "not merely in the treatises *but also* in the dialogues," requires me to point out that in the Greek texts this implication is not to be found. In the Plutarch passage (*adv. Coloten*; 1115 B) there is no "not merely . . . but also;" and the Proclus passage which, Jaeger admits, follows the original source more closely really says: "not only in the

logical works calling the Ideas 'twitterings' but also attacking the Idea of Good in the *Ethics* and in the physical works objecting to referring generation to the Ideas as in the *De Generatione* . . . and in the *Metaphysics* . . . and in the dialogues screaming most shrilly. . . ." Jaeger's conclusion that this is a "contrast" which "involves the tacit assumption that we have here something remarkable and contrary to the ordinary rule" is supported by Robinson's translations perhaps but not by the original texts. Similarly "they have often been defined already in the exoteric works" (page 274 translating *Politics*, 1278 B 30) is in the original *διοριζόμεθα περὶ αὐτῶν πολλάκις*; the mistranslation of the present tense and the insertion of "already" lends force to Jaeger's interpretation of *ἐν τοῖς ἐξωτερικοῖς λόγοις* which precedes. These examples may warn the student that it will be necessary for him to look up the Greek in every case; on page 359 the phrase "motion, then, being natural" will give him a low opinion of Aristotle's logical powers unless he turns to the Greek and sees that "natural" has been used to translate *ἀφ' ἑαυτοῦ*.

In the same way mistranslations of the German text sometimes misrepresent Jaeger's position. I here list some of those which affect the thought in fundamental fashion.

PAGE 149: "denn Planmässigkeit und Konstanz schliesst den Zufall mit seinem Ohngefähr und unberechenbaren Wechsel aus" is translated "for incalculability and merely average results exclude constancy and design;" the English exactly inverts the sense of the German and makes nonsense of the argument.

PAGE 200: "the importance of the problem of substance for physics" misrepresents Jaeger's point in "Das physikalische Interesse am οὐσία-Problem" (i. e., "the interest in the problem of substance as a physical problem"). "Daneben nehmen Metaphysik und Analytik an ihm stärksten Anteil" does not mean "and metaphysics and analytics also are very intimately concerned with it" but rather "metaphysics and analytics have *next to it* (i. e., the physical interest) the greatest share in the problem."

PAGE 202: "als bereits fertige Schrift" does not mean "having been originally intended as a complete work in itself." Jaeger does not take *Metaphysics Z* to be a work separate from H as this "translation" implies.

PAGE 218: "if there is an immovable substance the science of this must be prior and must be first philosophy" is copied from the Oxford translation of the passage but disagrees with Jaeger who translates "if there is an immovable substance, this is prior and philosophy (i. e., metaphysics) is first."

PAGE 273: "lost version" is probably a misprint for "last version."

PAGE 348, note 1: "Inadiquätheit" does not mean "incoherence with the rest." The translation misrepresents Jaeger and certainly is unjust to the reasoning of J. L. Ideler of whom the note speaks.

PAGE 380: "hinter sie zurückgeht" means not "goes behind the metaphysical aspect of Kant and Aristotle" but "falls below them in respect to metaphysics."

This list by no means exhausts the serious mistranslations and does not even touch the large number of passages in which the implications of the original are misrepresented by the English rendering. On the whole the difficult task of making readable English of the book has succeeded; my purpose here is only to warn students that the translation cannot be used instead of the original for serious study of Jaeger's hypotheses. It is interesting to note that the misquotation of Goethe in the original (page 111) has been corrected (page 110) but the ascription of the words of Odysseus (*Iliad*, II, 204) to Agamemnon still stands (page 219).

A thorough examination of Jaeger's arguments and conclusions is impossible in smaller compass than his own book; for that reason, perhaps, most of the reviews which greeted the book upon its first appearance were superficial and vaguely eulogistic; Professor Jaeger had discovered the man Aristotle by means of a new method of research. As a matter of fact, a similar attempt to determine the development of Aristotle had already been made in England by Thomas Case but had apparently escaped the notice even of English scholars (see the article on Aristotle in *Encyclopaedia Britannica*, 1910; cf. *Mind*, XXXIV [1925], pp. 80-86). Jaeger's book, however, was epoch-making; it undertook by study and reconstruction of the fragments of the Aristotelian dialogues and by an examination of the structure of the technical treatises to show that Aristotle developed steadily away from Platonism and that this development could be divided into three stages: the Platonic period represented by the dialogues, the middle period which covers the time from the removal to Assos down to the return to Athens during which Aristotle having discarded Platonic metaphysics was trying to rebuild philosophy without the Ideas, and the period of maturity—his second sojourn in Athens—when he resigned metaphysics and turned almost exclusively to empirical science. The writings—particularly the *Metaphysics*, *Ethics* (Jaeger rehabilitated the *Eudemian Ethics* as an earlier draft of the *Nicomachean*), *Politics*, *Physics*—he sought to make reveal strata of composition conforming to this division. His methods were applied to Aristotle's logic later by one of his pupils (F. Solmsen, *Die Entwicklung der aristotelischen Logik und Rhetorik*, Berlin, 1929).

In the hope that the appearance of this translation may inspire English-speaking scholars to undertake a closer examination of the problems raised by Jaeger's work I shall indicate some of the reviews and essays which have dealt with the subject and outline certain points in Jaeger's own argument which, I feel, make his thesis vulnerable. In this place I may also be permitted to make known to the scholarly world that in 1929 a detailed analysis and refutation of Jaeger's thesis was composed by the late Professor Roger M. Jones. The chapters he wrote were to form part of a book of which Professor Shorey meant to supply the concluding half dealing with his own solution of the Aristotelian problem; but Professor Shorey died before he could complete the task, and the MS of Professor Jones presumably still lies among Professor Shorey's papers. It is my hope that this highly important MS may still somehow be salvaged. As it is, there has been very little critical examination of Jaeger's work in English; the best general outline and evaluation of the whole theory is to be found in Geoffrey Mure's *Aristotle*, pp. 254-274. Since much of the theory rests upon analysis of the *Metaphysics*, it is necessary to call attention to Paul Shorey's review of Jaeger's earlier work, *Studien zur Entstehungsgeschichte der Metaphysik des Aristoteles* (*Class. Phil.*, VIII [1913], pp. 235-239); there, of the arguments carried over into the later book, Shorey attacks Jaeger's separation of Z-Θ from E and his notion that Z-Θ are inconsistent with MN, Jaeger's unphilosophical demand for strict separation of physics and metaphysics, and his argument that Z regards the Ideas as not yet refuted whereas they have been refuted in A 8-9. With this should be read Shorey's *Note on the Evolution of Aristotle* (*Class. Phil.*, XXII [1927], pp. 420-423). The basis for any further study of the *Metaphysics* must be the commentary of W. D. Ross and his résumé and criticism of Jaeger's arguments in the introduction to that work, vol. I, pp. xiii-xxiii. In the *Jahresbericht über die Fortschritte der klassischen Altertumswissenschaft*, 216 (1928), pp. 79-89, Paul Gohlke discussed Jaeger's work, admitting the conclusions for the ethical works but taking issue with the treatment of the metaphysical and scientific treatises. He pointed out that Jaeger's method of dating a whole book (e.g., *Metaphysics A*) from arguments concerning only one or two chapters of the book is inconsistent with Jaeger's own axioms and with the general theory of the development of the writings (see Jaeger's counter-criticism of Gohlke in *Gnomon*, IV [1928], pp. 625-637, esp. 634-7). The most extensive exact examination of Jaeger's book is that by H. von Arnim in *Wiener Studien*, XLVI (1928), pp. 1-48, who shows that in a number of cases Jaeger's analyses are self-contradictory. Von Arnim, however, is not merely criticizing Jaeger

but is at the same time defending a constructive theory of his own, the most striking element of which is the contention that the *Magna Moralia* is an authentic work of Aristotle, the earliest of the three *Ethics*. Nevertheless, he argues persuasively that the passages written in the first person plural and concerned with the Ideas by no means prove that Aristotle when he wrote them still thought himself a Platonist and that Jaeger's argument for two strata in the *Metaphysics* based on what he considers two contradictory conceptions of first philosophy rests only on Jaeger's own misunderstanding of Aristotle's problem (cf. Ross on *Metaphysics* 1026 A 23-32). This, incidentally, is a good example of Jaeger's "higher criticism." Because there seems to be a contradiction in the definitions of metaphysics at 1025 B 8 ff. (the study of being quâ being) and at 1026 A 10 ff. (study of the highest kind of being, i. e., the divine) Jaeger supposes (pp. 215-219) that 1026 A 23-32 is a later gloss added by Aristotle in an unsuccessful attempt to remove the contradiction. He does not consider that the difficulty inheres in any system which posits both forms in matter and a higher form without matter and that the reconciliation of the two phases does not prove that either phase ever existed alone as the "early metaphysical doctrine of Aristotle." The two cannot, in fact, be divorced as 1026 A 23-32 itself says, for it is just the ontological priority of the highest form, God, to the forms in matter which by giving metaphysics a special object of investigation makes possible a science of being quâ being (καὶ καθόλου οὕτως ὅτι πρώτη). Jaeger tacitly assumes that at any given moment Aristotle's doctrine would not include contradictions and where contradictions are apparent there must be a chronological difference in composition. Such conditions not only fit no other philosophical system known but, as assumed, they make any real "development" highly improbable, for development is the result of difficulties and contradictions felt by the philosopher in his current doctrine. If, when the philosopher says as he does here: "these two phases seem to be contradictory but are both consistent and mutually necessary and that for the following reason . . .," we insist that the statement proves the two phases were developed at different times, we impeach not only the logic but also the sincerity of the author.

Von Arnim also argues that Z H Θ are a natural continuation of B Γ E, a point on which Ross also (*op. cit.*, pp. xx-xxi) has cogently opposed Jaeger's view. One of the chief weaknesses of Jaeger's theory lies in the fact that by making the first books of the *Metaphysics* go back to the sojourn in Assos he is forced to say that the early books of the *Physics* were originally composed in Aristotle's "Platonic period" (pp. 296 and 299), that is, before Plato's death and while Aristotle still, according to

Jaeger, held to the Ideas. But von Arnim has with plausibility shown that the *Physics* opposes the theory of Ideas and indicates that the fundamental metaphysical doctrines of Aristotle were already fixed. From this he would set the *Physics* after Plato's death; that is another problem, and I wish only to point out the difficulties of Jaeger's assumptions for his own theory. The criticism of Platonic matter and being (*Physics* 191 B 35 ff.) tacitly includes a criticism of the Ideas, as *Physics* 192 A 13 ff. is explicitly critical of the relationship of Ideas and matter. Further explicit criticism of the Ideas occurs in 207 A 29 ff., 209 B 33 ff., 214 A 13-16. To be sure, Jaeger seems to leave himself an escape (p. 296, n. 3) by saying "our version of the *Physics* belongs to the latest period;" but he admits that "this is a question merely of revision and has no significance whatever for Aristotle's philosophical development." From his own arguments, therefore, Jaeger must admit that Aristotle had rejected and criticized the essential doctrines of Platonism before the *περὶ φιλοσοφίας* and before the death of Plato.

This brings us to the very foundation of Jaeger's theory, the interpretation of the dialogues to show that until the *περὶ φιλοσοφίας* was published in Assos Aristotle's writings were thoroughly Platonic. By showing that the *Protrepticus* "must have been based on Plato's ethical metaphysics" (page 84) Jaeger seeks to vindicate not only the "Platonic period" of Aristotle but also the authenticity of the *Eudemian Ethics* (pages 236 ff.). H. G. Gadamer (*Hermes*, LXIII [1928], pp. 138-164; cf. his review of Jaeger's book in *Logos*, XVII [1928], pp. 132-140) has argued that, since the *Protrepticus* was not a scientific ethical essay but a recommendation of philosophy on theoretical as well as practical considerations, the style of the *genre* makes it impossible to draw conclusions from it as to Aristotle's "method of ethics." He further attacks Jaeger's thesis that the *Protrepticus* contains the Platonic ideal of ethics as an exact science (which the *Nicomachean Ethics* rejects) by showing that the *Protrepticus* stresses the practical use of philosophy, and he presents Jaeger with the embarrassing problem of explaining why, if his theory is correct, the *Protrepticus* holds to the attitude of the *Phaedo* and disregards the contemporary Platonic reflections on ethics as we know them from the *Philebus*. Further, he illustrates the weakness of Jaeger's arguments from terminology and justly remarks that the use of the *Protrepticus* by the author of the *Eudemian Ethics* proves nothing about the authenticity of the latter. This section of Jaeger's theory was attacked in a similar fashion but with greater elaboration by Mary C. Needler in a Chicago dissertation, *The Relation of the Eudemian to the Nicomachean Ethics of Aristotle*, 1926 (cf. her article in *Class. Phil.*, XXIII [1928], pp. 280-284). In

order not to repeat what these critics have written I shall merely indicate certain additional cases of what I consider inconsistency or oversight in Jaeger's arguments.

(1) In a new portion (page 36) Jaeger seeks to use Plutarch, *de virt. mor.*, chap. 7, pp. 447 ff. as evidence that Aristotle was known to have abandoned the Platonic position for a different doctrine; this, Jaeger believes, supports his thesis that in the earliest dialogues Aristotle publicly supported the theory of Ideas. The passage in question, he says, "mentions Aristotle as the outstanding example of the fact that the true philosopher will alter his views without regret," and he stresses the verb *μετατίθεσθαι* as proof that Plutarch "cannot be referring to questions of minor importance, since it was a technical term in Hellenistic philosophy for the passage from one school to another." If the passage must refer to a change of school, as Jaeger thinks, why are Democritus and Chrysippus mentioned along with Aristotle? Was Chrysippus previously an Epicurean? What school did Democritus represent before he became an Atomist? But if one looks at the Greek, it becomes clear that the meaning of *μετατίθεσθαι* does not matter, for it is not directly applied to these three men of whom Plutarch says only *ἐνα τῶν πρόσθεν αὐτοῖς ἀρεσκόντων . . . μεθ' ἡδονῆς ἀφείσαν*. In this connection should be mentioned a similarly cavalier use of evidence in the case of the sixth Platonic epistle (Jaeger accepts it as genuine!). On page 113, where Jaeger is trying to reconstruct the political history of Hermias, the "controversies" mentioned in that epistle are interpreted as political and the epistle is called a "record of this peculiar pact between *Realpolitik* and theoretical schemes of reform;" but on page 173, when evidence is required for the existence at Assos of Platonists who doubted the theory of Ideas, these same "controversies" are said to have been philosophical debates. In the former case the arbitration of the Academy is political, in the latter it is concerned with metaphysics. The letter itself speaks only of personal friendship; if it is to be "interpreted," however, we have the right to demand a single and consistent interpretation.

(2) Jaeger maintains that the ethical system of the *Protrepticus* was thoroughly Platonic because it held that knowledge ought to be made exact even if it thereby becomes useless and that the *Nicomachean Ethics* later attacked this Platonism of the *Protrepticus* (pages 89, 241, note 2). Yet the *Protrepticus* (fragment 52: page 61, line 21 and page 62, lines 8 and 17 [Rose]; Iamblichus, *Protrepticus*, page 56, lines 2-12) stresses the use of philosophy and in one place (fragment 52, page 61, lines 25 ff.) states exactly the attitude which Jaeger quotes from the *Nicomachean Ethics* and calls "an intentional contradiction"

of the view represented in the *Protrepticus* (page 88, note 1). The argument from the different meanings of *φρόνησις* in *Nicomachean Ethics* and *Protrepticus* (pages 82-83, cf. page 236) must arouse misgivings when one notices that in *Nic. Eth.* 1103 A 5 ff. *φρόνησις* is grouped with *σοφία* and *σύνεσις* as *διανοητικαὶ ἀρεταί* and opposed to *ἠθικαὶ ἀρεταί*, although in this very book the Platonic ethics based upon the Ideas is attacked. Obviously Aristotle can use *φρόνησις* in the "intellectual" sense even after he has abandoned the Ideas (e. g., *De Anima* 404 B 5, which book according to Jaeger is late).

(3) Although Jaeger says (page 161) that Aristotle's derivation of the notion of God's existence in the *περὶ φιλοσοφίας* from (a) the experience of the soul in sleep and (b) from the sight of the heavens "is not to be taken historically; it does not refer to men of primitive times," the fragments imply that that is just how it must be taken (cf. fragments 10 [page 28, 12-18], 11 [page 29, 6-12: οὕτως οἱ πρῶτον εἰς οὐρανὸν ἀναβλέψαντες]). The notion that this is borrowed from Plato's *Laws* 966 D where the belief in God is derived "from the same two sources, the ever-flowing being of the inner life of the soul and the sight of the eternal order of the stars" depends upon a mistranslation of *Laws* 966 D 9-E 2 which refers to the fact that the soul is a self-moved mover and *opposes* the *ἀέναντος οὐσίας* to the *οὐσία* of the soul (cf. England's commentary *ad loc.*). So Plato's two proofs are *not* the two ascribed to Aristotle, and the edifying "Geistesgeschichte" of which the *περὶ φιλοσοφίας* is supposed to be one stage and in which Jaeger traces the "transformation of the first source, the ever-flowing being of the soul (as Plato called it), into the moral law (*scil.* of Kant)" back to the Stoics collapses with a correct translation of Plato's sentence. If the two "proofs" of Aristotle, however, are anthropological as the fragments say (e. g., ἐκ τούτων οὖν, φησὶν, ὑπενόησαν οἱ ἄνθρωποι εἶναι τι θεόν), they offer no evidence for an earlier attitude which was later changed in the work on Dreams, as Jaeger claims (page 162). Besides, that fragment 10 "steht auf gleicher Linie" with *Timaeus* 71 A-E I cannot see. The irony of Plato (κατέστησαν ἐν τούτῳ [i. e., τῷ φαύλῳ ἡμῶν] τὸ μαντεῖον and οὐδεὶς γὰρ ἔνους ἐφάπτεται μαντικῆς ἐνθέου καὶ ἀληθοῦς) is at poles apart from Aristotle's statement in fragment 10: ὅταν ἐν τῷ ὑπνοῦν καθ' ἑαυτὴν γένηται ἡ ψυχὴ, τότε τὴν ἰδίαν ἀπολαβοῦσα φύσιν προμαντεύεται κτλ. The sentiment of this fragment is given by Aelian (*V. H.*, 3, 11) as that of "the Peripatetics;" it was widespread before Aristotle (cf. Pindar, fragment 131, Christ; Aeschylus, *Eumenides*, 104-5) and is, in fact, the object of Plato's ironical psycho-biology in the *Timaeus* passage. Jaeger's misinterpretation of this passage is the basis of his argument that the work on the interpretation of dreams is late because it shows a complete break with the

Platonic "theological notion of clairvoyance and of prophecy" (pages 333-4). This "later" essay of Aristotle only develops the notions of the *Timaeus* except that the curiously "unemancipated" theory of Aristotle in respect to dreams that are prophetic and have "external causes" is an adaptation of Democritus' explanation (*Parva Nat.* 463 B 31-464 B 5).

(4) The thesis (page 333) that any passage in which Aristotle does not represent the soul as "partitioned" is late because it shows a divergence from the Platonic view while passages which speak of "parts" of the soul belong to the Platonic period overlooks the fact that Plato himself in the same work could and did take both attitudes. Moreover, Plato always considered the "tripartition" as only a handy and provisional account useful for ethical discourse (cf. *Rep.* 435 C-D, *Timaeus* 72 D). *Nic. Eth.* 1102 A 23 ff., which Jaeger considers an insertion in the later version of the *Ethics*, "an apology for thus simplifying the problem," says no more than the passages of Plato just cited and, in itself, might as well have been written in "Plato's middle period." A similar statement might be made about Jaeger's conclusion (page 350) from Aristotle's designation of the determination of the number of the spheres in *Metaphysics* A 8 as merely *εὐλογον*. This he thinks shows that Aristotle had become "sceptical" of metaphysics; but it is strikingly similar to Plato's insistence on the mere "probability" of physical science as against the certainty of dialectic (i. e., metaphysics) and shows, if it shows anything, that Aristotle still insisted upon the priority of first philosophy. With Jaeger's interpretation of *Metaphysics* 1074 A 31-38 as an indication of Aristotle's "surrendering metaphysics to the special sciences" compare the sounder analysis of Ross in his commentary (vol. I, pp. cxxxix f.).

(5) Jaeger's deduction from *Phys.* 249 B 19-26 that *Physics* VII arose before the theory of Ideas had been surrendered is not convincing, for, even if 249 B 23 does refer to ideal numbers, the statement *ἀλλ' ἀνώνυμον τὸ κοινόν* is in fact a refutation of the theory that *οὐσία* is number. (If *οὐσία* were number, it would not be true that the commensurability of *οὐσία* is nameless.) Aristotle here, as frequently, is arguing against reduction of substance to quantitative differentiation; and, since he elsewhere accuses Atomists and even Heraclitus and the Ionians as well as Plato of reducing *οὐσία* to number, it is by no means obvious that he has only ideal numbers in mind here.

(6) There is not enough evidence to render plausible Jaeger's reconstruction of the plan of the *περὶ φιλοσοφίας* (pages 128-129). Of the two references on which the reconstruction rests, that concerning the Magi (fragment 6) may have been a digres-

sion or example contained in a discussion of the number of *ἀρχαί* (cf. e. g., fragment 17 and the reference to a Pythagorean proverb in the course of discussing the number of spatial dimensions, *De Caelo* 268 A 10-13) and that concerning the Delphic injunction (fragment 3) was almost certainly introduced in connection with Socrates (cf. fragments 1 and 2). *Metaphysics* 1091 B 8, cited by Jaeger himself (page 133), is an example of how Aristotle used such references and shows that from an unconnected quotation no reconstruction of the original context is possible.

Jaeger's remark on page 295 is worth developing. He says: "We must beware of confusing temporal with systematic priority . . . and of equating the time when an idea received literary form with the time when it first occurred to the philosopher." Now, for the second part, it is impossible for us to establish the time of the birth of an idea in an author's mind unless he expressly gives it and even then he himself cannot always be certain. For the first part, the original order of composition, since it need not coincide with the order of conception, does not, even if certainly known, reflect the mental development of the author and with regard to his philosophy is less important than the systematic order especially if the author himself (as Aristotle does concerning the physical works) tells us what that systematic order should be. Moreover, when the whole body of writings consists of lectures that were repeatedly delivered and bound together by backward and forward references which may have been added at various times, it is apparent that the author looked upon the whole corpus as forming a self-consistent, unified system, and philosophically his work must be judged as such, if it was such that he intended it to be. This does not mean that the kind of study Jaeger has undertaken is not worth while when it is possible; but, even if we could be certain of the moment of composition of every line of the genuine writings, we should still have to treat the philosophy of Aristotle as a unit. Insofar as he himself preserved side by side earlier and later discussions and introduced the later notes into his earlier writings or incorporated earlier passages into later works we are bound to consider that at the end the technical writings he left were to his own mind a unified system. For example, Jaeger says that *Politics* IV-VI represent a later attitude than II, III, VII, VIII. But he also says (pages 268-269) that Aristotle himself inserted IV-VI into their present position and then wrote I to introduce the new *Politics*. He must, then, have thought I-VIII was a unified theory of politics, and, while we may discern what we think are contradictions, he could not have been aware of them. And in this matter of contradictions, Jaeger and many others overlook the fact that throughout Aristotle's thinking—at any single period—

there may have been two or more intellectual attitudes no one of which could exterminate the others, so that even in temporally successive sentences there was bound to be an oscillation which gives us the false impression of different chronological strata. Philosophy, even in a single mind, does not follow the course of geological forces.

HANS STROHM. Untersuchungen zur Entwicklungsgeschichte der aristotelischen Meteorologie (Philologus, Supplementband XXVIII, Heft 1). Leipzig, Dietrich'sche Verlag, 1935. Pp. 84.

This attempt to analyze the *Meteorology* from the point of view of "the history of Aristotle's development" assumes without argument the truth of the thesis that "transcendence" is a sure sign of Aristotle's early work as "immanence" is of his later thought. Strohm's remarks (p. 77) on the clear connection of transcendentalism and immanence in the exhalation theory and on the impossibility of using the passages concerning ἀτμός as a sign of late composition are so sensible that one is amazed to see into what false interpretations the influence of "Entwicklungsgeschichte" has elsewhere succeeded in leading him.

The most significant of Strohm's interpretations can be best

indicated by the table which he has given on p. 21, a comparison of two Platonic and four Aristotelian passages arranged to show the "development" of the doctrine in the *Meteorology*:

Tim. 58 C-D	Phaedo 109 B	Physics Δ 5	De Philos.	Meteor. A 3 De Caelo B 7
			πρῶτον σῶμα	πρῶτον σῶμα
αἰθήρ	ether	ether	fire	{ ἐτέκκευμα
ἀμίχλη τε καὶ σκότος	air	air	air	{ air
	water	water	water	water
	earth	earth	earth	earth

Strohm's interpretation of the Platonic passages is invalidated by the following considerations. In *Timaeus* 63 B-E fire has its own region of the universe (and this is the outermost layer), earth has for its region the center, water and air form layers intermediate between these two. In 58 C-D none of the various forms of air can be supposed to hold this outermost region, for the bodies and their variations are given in descending order of "purity": fire (φλόξ, φῶς, the "glow" of embers [τό τε φλογὸς ἀποσβεσθείσης ἐν τοῖς διαπύροις καταλειπόμενον αὐτοῦ is not "ash" as Strohm thinks]), air (αἰθήρ, ἀμίχλη τε καὶ σκότος, others ἀνώνυμα), water (ὑγρόν, χυτόν [i. e. fusible metals]). In the *Phaedo* passage, too, the fire of the stars is distinguished from the ether through which they would be seen by one on the "true surface of the earth" (109 E 7; 111 A 7 ff.), so that the same cosmic order as that in the *Timaeus* is here assumed.

Strohm's scheme for the *Physics* depends upon his conclusion that in 212 B 20 ff. Aristotle is "already" using ἀήρ in the inclusive sense of atmosphere. The use of αἰθήρ occurs here, he thinks, in much the same sense as in the Platonic passages. That Ross is right, however, in taking αἰθήρ here to be used in the sense of "fire" (*Aristotle's Physics* [Oxford, 1936], p. 578) is proved by 213 A 1-4 where it is said: τὸ μὲν ὕδωρ ὕλη ἀέρος . . . τὸ γὰρ ὕδωρ δυνάμει ἀήρ ἐστίν, ὁ δὲ ἀήρ δυνάμει ὕδωρ ἄλλον τρόπον. If ἀήρ included the ἐτέκκευμα of *Meteorology*, this statement would be impossible (cf. *Meteor.* 341 B 6-12). That the "fifth essence" is taken into consideration in the list is clear from the fact that, if there were no *body* outside of the αἰθήρ, the latter could not be ἐν τόπῳ (cf. 212 A 31-32, *De Caelo* 310 B 7 ff.). Strohm to the contrary, τοῦ οὐρανοῦ τι τὸ ἔσχατον καὶ ἀπτόμενον τοῦ κινητοῦ σώματος means the outer corporeal sphere the inner boundary of which is the "place" of αἰθήρ, so that there are *five* bodies implicit in the list. Of the "fifth essence" Aristotle could have said nothing more, for having no body outside of itself it can be "in place" no more than the universe as a whole. The context of this passage, then, refutes Strohm's thesis that here is in outline an early doctrine of four elements; the con-

clusions concerning Aristotle's development based upon this thesis (pp. 22 ff.) are consequently invalid.

Strohm argues that *Meteorology* A 3 contains two inconsistent parts joined together at 340 B 4. The doctrine of an atmosphere consisting of dry and moist exhalations (340 B 21-29) and called as a whole *ἀήρ* shows, he argues, that the second part represents a new attitude as over against the first in which fire and air are elements. He fails to note, however, that immediately after the statement of this "new doctrine," the "potential fire" is again called simply *πῦρ* and contrasted with the *ἀήρ* below it (341 A 2-9, cf. 344 A 11 where *ἀήρ* is distinguished from the "dry exhalation" above it). Moreover, Strohm admits that the doctrine of *De Caelo* B 7 is the same as that of the second part of this chapter. Now *De Caelo* B 7 cannot be treated as a "later addition," for its basic theme is given already in A 3 (cf. 289 A 16 ff. with 270 B 24); and, since the first part of *Meteorology* A 3 refers to this discussion in the *De Caelo* (*Meteor.* 339 B 20 ff., especially 36-37), the doctrine of the second part of the chapter was already in Aristotle's mind when he wrote the first part.

Strohm's notion that chapter 4 is independent of the preceding discussion because here the sun is first specified as the cause of vaporization seems hardly cogent, since *De Generatione* B 10 and 11 prove that the sun is the efficient cause of the changes of the simple bodies and a comparison of 341 B 18-22 with *De Gen.* 331 B 24-26 (cf. Joachim *ad loc.*) demonstrates that the theory of the dry exhalation in this chapter is no novelty. To one who has read the *De Generatione* (to which Aristotle refers back at the beginning of this work) *Meteorology* A 3, 340 B 23-29 (cf. 340 B 23 and *De Gen.* 330 B 25-29) implies all that Strohm finds new in chapter 4.

Limited space prevents a detailed analysis of Strohm's interpretations; I must give several examples, however, of his method of distinguishing the transcendental and the immanent elements in the *Meteorology*. On p. 50 he cites 361 B 14 (*ὁ δ' ἥλιος καὶ πάντα καὶ συνεχόμενα τὰ πνεύματα*) as stressing the immediate effect of the sun in a fashion not consistent with the original conception of wind. Yet the following sentences show that the effect of the sun on the wind is simply its effect on the generation and dispersal of the dry exhalation. Similarly he points out 361 B 23 ff. as an example of the "Haltung des Empirikers . . . die für Theophrast so charakteristisch ist" (p. 54) and so, I suppose, indicates Aristotle's "later" attitude; but on either side of the sentence mentioned the explanation is what Strohm calls transcendentalism, the effect of the movement of the sun upon the production of *ἀναθυμιάσεις* as the cause of wind and calm (cf. 361 B 14-23, 24-30, especially 361 B 35-362 A 11). Again, the "immanence" in the explanation of earthquakes and the

empiricism of the passage that deals with them are supposed to show that it belongs to the "later parts of the *Meteorology*" (p. 59). I list the "transcendent" passages in this section (B 8) that Strohm neglects or slurs over. 365 B 25-27 (ἡσθ' ὑπὸ τε τοῦ ἡλίου καὶ τοῦ ἐν αὐτῇ (scil. γῆ) πυρὸς κτλ.); 366 A 14-21 (presence or absence of sun as cause, especially: ὁ γὰρ ἥλιος ὅταν μάλιστα κρατῇ κατακλείει τὴν ἀναθυμίασιν εἰς τὴν γῆν); 366 B 2-7 (quakes vary with seasons because the sun creates more wind in certain seasons); 367 B 19-22 (quakes caused by changes of heat during eclipses); 368 B 12-22 (the influence of the unequal effect of the sun on various parts of the earth).

In all this the thesis of "development" has simply hobbled and blinded the interpreter. The explanation of the actualisation of fire by the movement of the "fifth essence," for example, and the use of an ἀρχὴ πυρώδης to explain comets etc. appear to Strohm to be two opposing theories which in 344 A 16 ff. "in inhomogener Weise zusammengewungen sind" (pp. 27-28). Throughout this section (pp. 25-37) the analysis of the inner inconsistencies of Aristotle's cosmology and meteorology is frequently excellent, but the attempt to assign various moments to chronological stages of development proceeds by question-begging and terminates in conclusions that bear no testing. The section that is designated as the oldest part of the treatise (A 4-8 + 341 A 17-36) has to have a part excised (341 B 36-342 A 24) and then must be supposed to have been reworked so that it contains much that was added at a later date (pp. 37-39). In other words, whatever in a passage dated "early" can be shown—according to Strohm's own criteria—to be late is simply cut out as a later addition or waved aside as a result of reëditing. There is no way to criticize such a method of interpretation.

PAUL GOHLKE. *Die Entstehung der aristotelischen Logik.*
 Berlin, Junker und Dünhaupt Verlag, 1936. Pp. 128.
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In this monograph Dr. Gohlke attempts to distinguish within the text of the *Organon* the different strata which mark the stages of development in Aristotle's logic. This development, he believes, is essentially the history of Aristotle's discovery of the quantity of judgments and the ever increasing rôle of the particular proposition, which means the gradual emancipation of logic from its metaphysical (i. e. Platonic) background. In the development of the doctrine of modality Dr. Gohlke finds a second means of distinguishing different chronological strata and a third in the changing theory of method, particularly in the supposed alteration of Aristotle's attitude toward the object of demonstration.

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The *Categoriae* and *De Interp.* are defended as genuine, the first having been written before the development of the doctrine of quantity, the second representing in its original draft a stage intermediate between *Categ.* and the *Analytics* and being the first attempt to master the problem of quantity. At no stage of the development can *Anal. Post.* be earlier than *Anal. Prior.*; but Aristotle frequently corrected or augmented the older writing without extending these changes to the whole work (p. 114), and *Anal. Post.* does go back to a very old original in which the absence of the doctrine of quantity forbids the assumption of the syllogistic of *Anal. Prior.* This leads Dr. Gohlke to assert that the passages on the indemonstrability of the definition are late and contrary to Aristotle's original doctrine. The assertoric judgment was invented only to disguise the fact that the syllogistic had been largely developed before Aristotle noticed the difference of modality and the indefinite judgment for the similar purpose of excusing the neglect of quantity in all that had been written before this distinction occurred to him.

Much of Dr. Gohlke's thesis depends upon his interpretation of *De Interp.*, chap. 7, which he considers as the key to the origin of the doctrine of quantity. His interpretation of the example, *ἔστι λευκὸς ἄνθρωπος—οὐκ ἔστι λευκὸς ἄνθρωπος* (17 B 10), as a clumsy attempt to express the particular proposition, which in the "more elegant formula of the *Analytics*" is *ἔστι τις ἄνθρωπος λευκός*, will hardly commend itself as a possible rendering of the Greek; that it is the *indefinite* proposition is proved by the fact that, instead of being replaced by the "more elegant" formula for the particular in 18 A 4-7 (which Dr. Gohlke brands as a later addition), it occurs *along with* the particular and the universal, as it does also in 18 A 14-17. Similarly in distinguishing the stages of the theory of modality in *Anal. Prior.* A, chap. 15, the phrase *τὸ μηδενὶ ἐξ ἀνάγκης ὑπάρχειν* (35 A 1-2) is taken to indicate "die Notwendigkeit des Nichtzukommens" (p. 86). In 34 B 36-37, however, Aristotle expresses the necessity of non-inherence by *τὸ A ἐξ ἀνάγκης οὐδενὶ τῷ Γ*, and in 35 B 35-36 he says: *ἕτερον γὰρ τὸ μὴ ἐξ ἀνάγκης ὑπάρχειν καὶ τὸ ἐξ ἀνάγκης μὴ ὑπάρχειν*. The *μηδενὶ ἐξ ἀνάγκης* of 34 B 28 is Aristotle's own equivalent for the *ἀνδέχουτ' ἂν τὸ A μηδενὶ τῷ Γ* of 34 B 25-26 (which Dr. Gohlke mistakenly translates: "Daher kann wohl das A keinem C zukommen" and then calls "recht missverständlich"; not *τὸ A* but the whole phrase *τὸ A μηδενὶ τῷ Γ* [*scil.* *ὑπάρχειν*] is the subject of *ἀνδέχουτ' ἂν*). It is clear, then, that 35 A 1 and 34 B 28 both express the "non-necessity of the attribution." If this is so, Dr. Gohlke's analysis of four stages of development in the chapter is entirely mistaken.

All too often are important conclusions drawn from misinterpretations of which the above are, I think, fair examples. In addition it seems to be assumed that Aristotle could never

pass over in silence a distinction which he had previously made, could never be guilty of an oversight, could never at a single stage of his career have given both a "dialectical" and an "analytical" proof or refutation of one and the same proposition. On *Anal. Post.* 73 B 27-28 (It is therefore clear that all universal attributes inhere in their subjects necessarily) Dr. Gohlke says (p. 95): "He who speaks in this fashion does not yet know anything about universal problematic or necessary particular judgments." H. W. B. Joseph in *An Introduction to Logic*, pp. 175-6, writes: "A particular judgment refers to part only of the denotation of some conceptual subject, an universal to all; but this is because in the latter the relation of concepts is taken to be necessary, and therefore the subject-concept sufficiently determines the application of the judgment, in the former it is not, and we indicate by the word *some* that the application of the judgment is not completely determined." Yet Dr. Gohlke believes that the sentence of Aristotle makes it clear that in all the older draft of *Anal. Post.* neither the theory of quantity nor that of modality was presupposed.

Aristotle, *Parts of Animals*, with an English Translation by A. L. PECK; *Movement of Animals and Progression of Animals*, with an English Translation by E. S. FORSTER. The Loeb Classical Library. Harvard Univ. Press, 1937. Pp. 556.

The treatise which takes up the first four-fifths of this volume had not been edited since 1868; and Dr. Peck, although relying for the readings of the Greek MSS upon the *apparatus* of Bekker and Langkavel, has made a serious attempt to establish an improved text of this important work. In so doing he has employed the Latin version of Michael Scot and the Arabic MS (B. M. Add. 7511) which he believes to be the original from which Michael Scot made his version.

Besides a great number of emendations of his own he has adopted many of Ogle's conjectures and of Platt's and also numerous suggestions of Cornford and Rackham. Most of these are improvements of the traditional text, even though some are unnecessary and possibly wrong (e.g. the change of *ὀρθόν* to *ὀρθός* in *ὁ μὲν γὰρ ἄνθρωπος ὀρθόν* [695 A 6]); but many others are too important to be passed over in silence.

At 643 A 32 Peck changes *διαρεῖν* to *διαροῦσιν*; wrongly, for Aristotle is here giving the "correct" manner of dichotomy and *διαρεῖν* depends upon the *χρή* in line 27 (*ἔτι διαρεῖν χρή*, cf. *Metaphysics* 1038 A 9: *δεῖ γε διαρεῖσθαι*). He then excises in lines 32-33 *διάφορα γὰρ ἀλλήλοις τάντικείμενα*, contending that this and 643 A 33-35 (*ἐὰν οὖν θάτερα . . . , καὶ μὴ . . . χρώματι*) which

he also excises were interpolated in order to bring this passage into line with *Metaphysics* 1058 A 9 ff. Both passages are to be defended by reference to the chapter on dichotomy in *Anal. Post* (cf. 97 A 14: *εἴτα ὅταν λάβῃ τάντικείμενα καὶ τὴν διαφορὰν κτλ.* and 97 A 19-21: *τὸ δ' ἅπαν ἐμπίπτειν εἰς τὴν διαίρεσιν, ἂν ᾗ ἀντικείμενα ὧν μὴ ἔστι μεταξύ, οὐκ αἴτημα*). Certainly 643 A 33-35 must remain, for in excising it Peck cuts out the negative *μὴ* which should govern the rest of the sentence and in consequence he has to change the *γὰρ* in 643 B 1 to *δὲ*, alter *τῷ ἀγρίῳ καὶ ἡμέρῳ διαιρεῖσθαι* in 643 B 3 to *τὸ . . . διαιρεῖσθαι*, cut out the *γὰρ* after *ὡσαύτως* in 643 B 4, and make of lines 3 and 4 a single sentence. All these changes are mere conjectures, necessitated only by the original conjecture which is mistaken.

In this same chapter Peck also excises 643 B 30-33 (*λέγω δὲ . . . σχιζόπουν*), 643 B 36-644 A 1 (*οἷον τὸ πολυσχιδὲς . . . περιέργα*), 644 A 3 (*ἀλλ' οὐκ ἐπὶ . . . εἶδος*); these passages are difficult, but they require interpretation, not excision.

In 656 A 16 Peck changes *ἀλλ'* to *ἄλλοι δ'*. Had he noticed that 656 A 15-17 refers to *Timaeus* 75 A-C, he would have seen that the subject of *λέγουσιν* and of *φασιν* is the same and that the MSS are right. (References to Plato are omitted also at 652 A 25 [*Timaeus* 75 C-D] and 664 B 7 [*Timaeus* 70 C, although the theory was widely held, cf. Taylor *ad loc.*]; at 640 A 18 a reference to *Philebus* 54 A-C and at 641 B 12-20 one to *Philebus* 29-30 as the sources of these important doctrines would not have been out of place.)

In 676 A 33 Peck follows Ogle in changing *διόπερ* to *διότι*. The proper change, I think, is to *δὲ ὅπερ* without preceding punctuation. This is supported by the *γάρ* of the following sentence (cf. also Michael Ephesius, p. 68, 11-13).

Of the passages which have been altered on the basis of Michael Scot's version the most important are 654 B 16-25 and 684 B 22-29; in the latter passage all the references to the diagram are excised as later interpolations and two lost clauses are filled out in Michael's Latin. The original diagram, Peck believes, must have been a straight line marked off A B Γ Δ. Apparently for this reason objecting to the use of E to designate the whole line, he changes 685 A 2-3 (*. . . τὴν εὐθείαν ἐφ' ἧς τὸ E κάμψας προσάγαγοι τὸ Δ πρὸς τὸ A*) to read: *. . . τὴν εὐθείαν ἐφ' ἧς A B κάμψας προσάγαγοι πρὸς τὸ Δ*. This is almost certainly wrong, for Aristotle has just said *κέκαμπται ἡ τελευτὴ πρὸς τὴν ἀρχήν*; and it is incredible that he should have marked the ἀρχή Δ and the τελευτή A as he must have done with Peck's reading. If objection to *ἐφ' ἧς τὸ E* be valid, the MSS reading should be kept with the excision of this phrase only. This criticism does not, of course, affect the treatment of 684 B 22-29.

Dr. Peck's English version is a very free paraphrase rather than a translation. Even the order of Aristotle's clauses and

sentences is frequently altered, often for no obvious reason and all too often with the result of confusing the original arguments. An example of this may be seen in the varied treatment of the characteristically frequent—and perhaps monotonous—*γάρ*. Sometimes Dr. Peck simply omits the word (688 A 1, 693 B 16, 694 A 16, 694 A 23); elsewhere it is rendered by “obviously” (640 A 12), “in other words” (656 A 13, 672 A 8), “thus” (674 B 28), “as we know” (670 B 20), “when we remember that” (671 A 1), “and” (676 A 16, 687 A 1, 691 B 27, 692 A 5), “in fact” (687 B 25, 696 A 8, 640 B 28), “so that” (692 B 22), “at any rate” (640 B 11), “however” (641 A 7). This may be an *improvement* on Aristotle’s style, but it obscures and often obliterates the course of his reasoning.

There are other passages of which the interpretation must be questioned quite apart from the somewhat ambiguous questions of style and clarity.

639 A 23-24: *κατὰ μέρος λέγοντες* does not mean “if our discussion is limited to a part of the subject” but refers to *λαμβάνοντες μίαν ἐκάστην οὐσίαν* (639 A 16) and means “even if we discuss them species for species” (cf. 644 A 34 ff.). The misinterpretation of this sentence is responsible for Peck’s change of *τούτων* to *πάντων* in 639 A 23.

640 A 21-22: The preceding *ἐν τῇ γενέσει* does not justify the addition here of “the fetus.” Moreover this probably misrepresents Empedocles’ meaning, for he most likely did not mean that the articulation was so produced in *each individual* but in the progenitors of the race.

642 B 7-9: *ἐνίων γὰρ ἔσται διαφορὰ μία μόνη* does not mean “There are some groups which will be found to have only one line of differentiation.” The force of *ἔσται* has been mistaken. Aristotle is giving a reason why dichotomy fails (note the *γάρ*) and means that it would result in giving some groups only one differentia (cf. 643 B 15-17). *τὰ δ’ ἄλλα περίεργα* means not that all the other “lines of differentiation” will be superfluous but that all the other *stages* of the division, all the differentiae except the *last one*, are superfluous. Then *αὕτη γὰρ μόνη κυρία* means *not*: “This line of differentiation is the only one that counts” (note Peck’s failure to translate *γάρ*, which word shows that this sentence is the supporting statement for *ἔσται . . . μία μόνη τὰ δ’ ἄλλα περίεργα*) *but*: “For this differentia (i. e. the last) is alone valid.” The next sentence, *εἰ δὲ μή, ταῦτόν πολλάκις ἀναγκαῖον λέγειν*, proves this interpretation; cf. *Metaphysics* 1038 A 19 ff.

643 B 35: *ἀλλὰ παρὰ τὴν λέξιν συμβαίνει δοκεῖν κτλ.* Peck translates “But in consequence of the form of expression the last term alone is looked upon as constituting the differentia.” This

is the usual interpretation; but it cannot be right, for it implies that Aristotle does *not* believe the last term alone to constitute the differentia, whereas his point is that it *does* (642 B 8-9, 644 A 8-10; *Metaphysics* 1038 A 19-20, 28-30). Certainly he does *not* believe that the opinion is a fallacy *παρὰ τὴν λέξιν*. The word *δοκεῖν* does not necessarily imply a *false* impression; and the sentence means that the very *expression* shows the last term alone to be the differentia. Peck shows his feeling of uneasiness about the passage by excising *ὅλον τὸ πολυσχιδὲς . . . περίεργα* at the end of the sentence; but that helps nothing, and *Metaphysics* 1038 A 30-34 which supports the interpretation I have given here for *παρὰ τὴν λέξιν* also argues for retaining the last words.

645 B 10-11: *περὶ ἐκάστων τῶν καθ' ἑκαστα* means *not* "of individual peculiarities" but "concerning the several particular kinds" (i. e. atomic species). Cf. 644 A 30-31.

646 B 17-18: *πρὸς μὲν γάρ τινα . . . πρὸς δέ τινα* means *not* "for one part . . . for another" but "for one *action*" Cf. 646 B 23-25.

648 B 23-24: *λέγεται μὲν οὖν εἰ μὴ πλεοναχῶς ἀλλὰ τοσαυταχῶς . . .* means *not* "the senses . . . are as many as this, even if they are not quite numerous" but ". . . so many, if *not more*." Cf. *Metaphysics* 1022 A 11-12.

655 B 35: *ἀντὶ δὲ τούτου*. The *τούτου* refers *not* to the food of plants but to *τοῦ ἀχρήστου περιττώματος* (line 33).

657 B 21: *καὶ τὸ πρόσθιον ἀρχὴ τοῦ πλαγίου μᾶλλον* does *not* mean "it is better to have it (*scil.* the place of origin) in front than at the side" but "And the front is more of an *ἀρχή* than the *side*."

658 B 23-26: . . . *διὰ τὴν ἀπιούσαν ἑμάδα σωματικὴν οὖσαν . . . καὶ διὰ τὴν τοιαύτην αἰτίαν ἐξ ἀνάγκης* Peck takes as expressing *two* causes, failing to see that *διὰ τὴν . . . οὖσαν* is the *necessary* cause as opposed to the final cause given in lines 14-18. The whole sentence means "so that by reason of the fact that the moisture which comes off is corporeal, if some function of nature does not divert it to another use, hair must grow in these places *even through some such necessary cause*."

670 A 19: *τούτων* is not "the liver and the spleen" but all the viscera below the diaphragm.

677 B 21-22: *ἡ μὲν οὖν γένεσις ἐξ ἀνάγκης συμβαίνει τοιαύτη τοῦ μορίου τούτου* Peck translates: "As for the formation of this part, it is such as it is owing to necessity." The subject, however, is *ἡ γένεσις ἐξ ἀνάγκης*; and the sentence means: "The necessary development of this part is as follows:" Then in 677 B 30 *ἡ μὲν οὖν γένεσις . . . συμβαίνει κατὰ τὸν λόγον τούτου* means *not* "This then is the rational basis of the formation . . ."

but "The development of the omentum occurs in this way." κατὰ τὸν λόγον τοῦτον does not refer to the final cause (as is shown by the next words, καταχρῆται δ' ἡ φύσις . . .) which is given only in 677 B 33 ff.: καὶ διὰ τοῦτ' . . . ὅτι . . .

678 A 3-4. Here Peck makes the same mistake. τὴν μὲν οὖν γένεσιν ἐξ ἀνάγκης οὔσαν εὐρήσομεν ὁμοίως τοῖς ἄλλοις μορίοις he renders "We shall find, as with the other parts, that the development . . . is of necessity." It means, however, "We shall find that it has, to be sure, a *necessary* development just as have the other parts." In 692 A 3-4 also Peck mistakes ἐξ ἀνάγκης μὲν οὖν διὰ ταύτην τὴν αἰτίαν τοῦτο συμβέβηκεν αὐτοῖς which means "This, then, is the *necessary* cause why they have this ability." Cf. *De Gen. Anim.* 755 A 21-23, αὐξάνεται τὰ φὰ ἐξ ἀνάγκης μὲν διὰ ταύτην τὴν αἰτίαν which Aubert and Wimmer correctly translate: "Diess ist die nothwendige Ursache für dieses Wachsthum der Eier."

680 B 12-13: οὐ γὰρ ἐστὶν . . . τὸ κύκλῳ ἀνόμοιον means *not* "that is, it (*scil.* the ovum) is not asymmetrically placed round the circumference . . ." but "For the circumference is not dissimilar . . .". Then τῷ δ' ἄνω τὸ τοιοῦτον μέρος (line 14) goes *with* the preceding ἐν μέσῳ γὰρ ἡ κεφαλὴ πᾶσιν αὐτοῖς and means *not* "in the sea urchin it is on top" but "such a part (*i. e.* the head) serves for the *upper* part." Both Michael Ephesius and Theodore of Gaza have this right.

689 A 11-12: τὸν αὐτὸν δὲ τρόπον . . . τὴν γονήν. This Peck keeps and translates: "The same applies to the catamenia in females, and the part where they emit the seed." Since according to Aristotle the female does not emit seed, this can hardly stand. Now γονή is used of *male seed* as opposed to καταμήνια in lines 14-15. The proper sense in the present passage can be attained by changing τὴν γονήν to τῇ γονῇ. Neither Michael Ephesius nor Theodore of Gaza seems to have had τὴν γονήν and both treat γονή as exclusively male.

Professor Forster's treatment of the last two essays is in every way more "conservative" than the work of Dr. Peck. These treatises were edited by W. Jaeger in 1913, and Forster has adopted some sixteen of Jaeger's changes and has agreed with him as against Bekker in eleven choices of readings; he has followed Farquharson thrice and introduced ten changes of his own, only one of which is a conjecture. The interpretation of the frequently involved argument is usually correct, and the English style is a good approximation to the original. In the following passages, however, I believe the translation to be inexact.

698 B 1: ἡ ἀρχὴ ἣ πρὸς ὃ should be *not* "the origin to which the movement can be traced" but "the relative origin."

700 A 11: ὥς πρὸς μένον means *not* "in virtue of the fact that

the latter is at rest" but "as if upon a body at rest," for this part may be only *relatively* at rest.

701 A 20-21: πράττει δ' ἀπ' ἀρχῆς cannot mean "The action results from the beginning of the train of thought" but "Action proceeds from a beginning" (i. e. the true principle of the productive process). The *conclusion*, ἰμάτιον ποιητέον, is here called πρᾶξις (cf. *Metaphysics* 1032 B 15-17: τῶν δὴ γενέσεων . . . ἡ μὲν ἀπὸ τῆς ἀρχῆς καὶ τοῦ εἶδους νόησις, ἡ δ' ἀπὸ τοῦ τελευταίου τῆς νοήσεως ποίησις). After one has reached the *conclusion*, ἰμάτιον ποιητέον, one reasons back by "hypothetical necessity" to the conclusion which gives the necessary first step of the action.

702 A 31: εἰ τὸ ζῷον ἦν βραχίον Forster translates "if the forearm were a living creature." This interpretation, however, requires ὁ βραχίον which Jaeger prints.

702 B 7-8: μηδὲ εἴ τι ἐστὶν ἕτερον ἐκείνου ἐξωτέρω means *not* "nor in any other part which is further from it" but "or which has another beyond it."

709 A 20-21: ἀνάγκη ἄρα κάμπτεσθαι τὸ προῖόν καὶ κάμψαν ἅμα ἐκτείνειν θάτερον Forster renders: "The advancing leg must therefore be bent, and the animal, as it bends it, must at the same time stretch the other leg." It is, of course, the leg *at rest* that is bent; τὸ προῖόν and τὸ κινούμενον (in line 16 b, which Forster translates "the leg which moves . . .") refer to ζῷον *not* to κῶλον, and the sentence means: "Therefore, the advancing animal must bend and at the same time that it has bent <the resting leg> must stretch out the other."

705 B 12: ἐφ' ὃ μὲν γὰρ ἡ αἴσθησις πέφυκε καὶ ὅθεν ἐστὶν ἐκάστοις means *not*. "for the parts in which the sense perception is implanted," etc. but "for the direction in which sensation functions and whence," etc. Forster has been misled by Michael Ephesius who read ἐφ' ὅ, which is the reading of S and was that of Leo. See *De Caelo* 284 B 28-30 where some MSS have the same confusion and where ἀπὸ τῶν ἐμπροσθεν ἡ κατὰ τὴν αἴσθησιν (κίνησις) guarantees ἐφ' ὃ and the sense.

708 B 3: τὸ δὲ κατὰ τὴν ἑτέραν ἀντίθεισιν μόνην does *not* mean "it will rest it on a pair of opposite legs" but "it has a support for its body on one side only."

Notice should be taken of the full introduction which Dr. Peck has prefixed to the *Parts of Animals*; here he has given a complete synopsis of the treatise, a list of technical terms with their meanings, and a good account of the history of the translations of Aristotle's zoölogical works. Dr. F. H. A. Marshall has written a brief foreword to this treatise.

ARISTOTLE, *METAPHYSICS* 987 A 32-B 7.

In a paper entitled "The Problem of Cratylus," which was recently published in this Journal¹ Mr. D. J. Allan contends that *Metaphysics* 987 A 32 ff. has been generally misinterpreted and that, contrary to what is usually asserted, Plato's acquaintance with Cratylus and the Heraclitean theories is not there said to have antedated his acceptance of Socrates' position. Mr. Allan translates the first part of the passage as follows:² "In the first place, Plato was from youth familiar with Cratylus and the Heraclitean theories that all sensible things are in continual flux and cannot be the objects of science; and so he continued afterwards to think." In support of this translation and what is implied by it he states:³ "The word *πρῶτον* has been understood by all modern and some ancient readers in a *temporal* sense. It is, however, followed in the Greek not by *ἔπειτα*, but the adversative clause *Σωκράτους δὲ περὶ μὲν τὰ ἠθικὰ πραγματευομένου, περὶ δὲ τῆς ὅλης φύσεως οὐδέν*; and this indicates that it is *logical* priority which Aristotle has in mind."

This analysis of the sentence is seen to be erroneous, however, as soon as the passage is read in its entirety. The Greek text runs as follows: *ἐκ νέου τε γὰρ συνήθησεν γενόμενος πρῶτον Κρατύλῳ καὶ ταῖς Ἡρακλειταίοις δόξαις, ὥς ἀπάντων τῶν αἰσθητῶν αἰεὶ ρεόντων καὶ ἐπιστήμης περὶ αὐτῶν οὐκ οὔσης, ταῦτα μὲν καὶ ὕστερον οὕτως ὑπέλαβεν· Σωκράτους δὲ περὶ μὲν τὰ ἠθικὰ πραγματευομένου περὶ δὲ τῆς ὅλης φύσεως οὐθέν, ἐν μέντοι τούτοις τὸ καθόλου ζητοῦντος καὶ περὶ ὁρισμῶν ἐπιστήσαντος πρώτου τὴν διάνοιαν, ἐκείνον ἀποδεξάμενος διὰ τὸ τοιοῦτον ὑπέλαβεν ὡς περὶ ἐτέρων τοῦτο γιγνόμενον καὶ οὐ τῶν αἰσθητῶν· ἀδύνατον γὰρ εἶναι τὸν κοινὸν ὅρον τῶν αἰσθητῶν τινός, αἰεὶ γε μεταβαλλόντων.*

The clause beginning with *Σωκράτους δὲ* does not end with *οὐθέν*, as Mr. Allan's note implies, but with *ἐκείνον ἀποδεξάμενος . . . ὑπέλαβεν . . . μεταβαλλόντων*. This *δέ* is not correlative with *πρῶτον* but connects this *ὑπέλαβεν* with the preceding *ταῦτα μὲν*

¹ *A. J. P.*, LXXV (1954), pp. 271-87.

² *Ibid.*, p. 275. He translates only as much as I quote here, i. e., A 32-B 1.

³ *Ibid.*, p. 275, n. 2.

καὶ ὕστερον οὕτως ἐπέλαβεν,⁴ and these two verbs (ἐπέλαβεν . . . ἐπέλαβεν) are contemporaneous. The preceding participle γενόμενος by its tense alone is shown to be temporally prior to ἐπέλαβεν . . . ἐπέλαβεν, and this priority of the participial clause is still further emphasized by the καὶ ὕστερον with the first ἐπέλαβεν. Consequently, quite apart from the significance of πρῶτον, the structure of the sentence, γενόμενος . . . ταῦτα μὲν καὶ ὕστερον οὕτως ἐπέλαβεν· Σωκράτους δὲ . . . ἐκείνον ἀποδεξάμενος . . . ἐπέλαβεν, shows that the meaning must be: "after having become (been) . . . while later too he held this conception of these things, when he had accepted the doctrine of Socrates . . . he conceived . . .". As to πρῶτον itself, it cannot bear the meaning that Mr. Allan gives it. Apart from the fact that it is not, as Allan says it is, "followed . . . by . . . the adversative clause Σωκράτους δὲ . . . οὐδέν," its position alone shows that it is not "logical" governing the whole clause, ἐκ νέου . . . οὕτως ἐπέλαβεν, in which it stands (for that Aristotle would have written πρῶτον μὲν or πρῶτον μὲν οὖν at the beginning) but that it goes closely with Κρατύλῳ καὶ ταῖς Ἡρακλείτεισι δόξαις and means "having from his youth been familiar first with Cratylus and the Heraclitean theories." In short, rightly or wrongly Aristotle does in this passage assert that Plato was familiar with Cratylus and the Heraclitean doctrines before he accepted the position of Socrates.⁵

I am not here concerned with the main thesis of Mr. Allan's paper or with that of Mr. Kirk's (*A. J. P.*, LXXII [1951], pp. 225-53) which it combats. Mr. Allan is certainly right in maintaining against Mr. Kirk that Cratylus is depicted in Plato's dialogue, the *Cratylus*, as a convinced Heraclitean and right too, I think, in holding that the problem posed by Mr. Kirk is an "unreal one";⁶ but he commits a grave error in trying to sup-

⁴ It is noteworthy that neither in his translation nor in his note does Mr. Allan take any account of this μὲν.

⁵ Of course, Allan is right in maintaining that ἐνέθετο as used by Aristotle need not mean that "Plato received formal instruction in the Heraclitean philosophy from Cratylus"; but then he certainly did not receive "formal instruction" in anything from Socrates either.

⁶ Cf. against Kirk's thesis R. Mondolfo, *Notae y Estudios de Filosofia*, IV (1953), p. 235; *Riv. di Filosofia*, XLIV (1953), p. 136; *Riv. Crit. di Storia della Filosofia*, IX (1954), pp. 221-31.

port his own case by a misconstruction of this Aristotelian passage, and I believe it important to call attention to this error lest Mr. Allan's scholarly prestige lead others to adopt and perpetuate his misreading of the Greek.

H. D. SAFFREY: *Le Περὶ φιλοσοφίας d'Aristote et la théorie platonicienne des idées et des nombres*. Leiden: Brill 1955. XII, 74 S. 9 hfl. (*Philosophia Antiqua*. 7.)

In *De Anima* A 2 Aristotle professes to list the doctrines hitherto espoused concerning the nature of soul and the reasons for their espousal. First he gives those which he says show that their authors thought of soul as primarily the cause of the motion that distinguishes the animate from the inanimate (403 B 28–404 B 8) and next those in which he thinks soul, regarded as cognitive and perceptive, was identified with the principles of the entities known or perceived (404 B 8 ff). As examples of the latter class he gives first the theory of Empedocles (B 11–15) and next Plato's construction of soul in the *Timaeus* (B 16–18); and immediately thereafter with the words *ὁμοίως δὲ καὶ ἐν τοῖς περὶ φιλοσοφίας λεγομένοις διωρίσθῃ* (404 B 18–19) he introduces a theory, the account of which extends either to B 27 or to B 30 and the author of which he does not name. To refute those who have denied that B 18–27 refers to Plato¹ is the primary purpose of Saffrey's monograph, the MS of which the author

¹ Of these Saffrey concerns himself chiefly with H. Cherniss, *Aristotle's Criticism of Plato and the Academy* 1 (hereafter referred to as *Aristotle on Plato* 1), where it is argued (565–579) that *ἐν τοῖς περὶ φιλοσοφίας λεγομένοις* refers to Aristotle's *De Philosophia*, that the passage ends not at B 27 but at B 30 (. . . *κινουῖνθ' ἑαυτόν*), and that throughout B 18–30 Aristotle has in mind Xenocrates and not Plato at all. In 1952 without knowledge of this work P. Kucharski in his 'Étude sur la Doctrine Pythagoricienne de la Tétrade' argued that 404 B 18–27 was meant to be a résumé of an authentic Pythagorean doctrine and has nothing to do with Plato (on this see A. Mansion, *Rev. Philos. de Louvain* 51, 1953, 312–314; J. Moreau, *REA* 55, 1953, 428–429). To the refutation of this work Saffrey, the body of whose monograph had been completed in January 1951, devotes several pages of his preface (X–XII). Too soon thereafter to take cognizance of this Kucharski in another publication (*Archives de Philosophie N. S.* 1 = 19, 1955, 7–43) tried to take account of evidence and literature that he had previously neglected and still to maintain the thesis of his earlier monograph.

says (X) Sir David Ross «a bien voulu lire entièrement . . . , me marquer son complet accord sur son contenu et m'encourager à le publier».¹

S. thinks that the «logical rigor» of 404 B 16–27 requires the whole of this section to be understood as referring to Plato. He recognizes, however, that ἐν τοῖς περὶ φιλοσοφίας λεγομένοις in B 19 must mean Aristotle's own work, the *De Philosophia*, of which consequently 404 B 18–24 at least is a citation. He then argues that in the second book of the *De Philosophia* Aristotle had made 'Plato' the main character of the dialogue and had put into his mouth a résumé of doctrine which in the *De Bono* Aristotle had already reported from Plato's lecture On the Good and that *De Anima* 404 B 18–24 is a résumé of that résumé given by the character 'Plato' in the *De Philosophia* of the report in Aristotle's *De Bono* of doctrine expounded by Plato in his lecture. Therefore S. concludes that the text of the *De Philosophia* resumed in this passage of the *De Anima* is an authentic interpretation of the *Timaeus* by Plato himself «en fonction de sa dernière métaphysique».

Citing *Physics* 194 A 36, where Aristotle refers to his *De Philosophia* with the phrase ἐν τοῖς περὶ φιλοσοφίας, and later authors who refer to a work of Aristotle's by this title (7–11), S. discusses (51–53) the λεγομένοις added to this formula in 404 B 19. His final translation of the phrase there, «dans l'ouvrage intitulé 'Sur la philosophie'», is certainly correct; but he is as certainly wrong in explaining that Aristotle added λεγομένοις because περὶ φιλοσοφίας was felt to be a strange title for a dialogue.

Plato's *Republic* and *Laws* alone² suffice to refute S.'s amazing assertion that all the dialogues of Plato and of the Socratics known to us had as title the name of one of the persons of the dialogue. In fact, dialogues with the very title περὶ φιλοσοφίας are ascribed to the Socratics, Simon and Simmias,³ and to Aristotle's older contemporary, Speusippus.⁴ S. is bothered by λεγομένοις because he has not freed himself from the erroneous notion of the implication of καλούμενον and λεγόμενον, as is shown by his reference (XI) to the notorious οἱ καλούμενοι Πυθαγόρειοι, which no more implies that the persons meant are not genuine Pythagoreans than οἱ καλούμενοι γεωργοί (*Politics* 1290 B 40) and οἱ λεγόμενοι Στωϊκοὶ φιλόσοφοι (S. V. F. 2, 187, 16) imply that the former are not really farmers and the latter not genuine Stoics. The participles indicate that the substantives are being used as designations in the currently recognized sense, and such is their function in references to books as well. S. himself cites ἐν τοῖς λεγομένοις ἀγράφοις δόγμασιν and τὰς Κνιδίας καλεομένας γνώμας. Of the many other examples that could

¹ Ross, *Plato's Theory of Ideas*, Oxford, 1951 (second edition, 1953), 145. 209–215 had himself argued that B 18–27 refers to Plato. So his approval of S.'s conclusion is natural; but it is a pity that he apparently did not call S.'s attention at least to the more obvious mistranslations which disfigure the argument.

² Known to Aristotle as ἡ πολιτεία (*Politics* 1261 A 6; 1291 A 11; 1342 A 33; *Rhetoric* 1406 B 32) and οἱ νόμοι (*Politics* 1264 B 26; 1266 B 5; 1271 B 1); cf. Proclus, *In Rem Publicam*, 1, 8, 10–9, 4 (Kroll). Plato himself seems to refer to the *Sophist* by the title ὁ σοφιστής (*Politicus* 284 B 7; cf. E. Nachmanson, *Der griechische Buchtitel*, 1941, 10).

³ *Diog. L.* 2, 122 and 124.

⁴ *Diog. L.* 4, 4; cf. P. Lang, *De Speusippi Academici Scriptis* 46–47 and Stenzel, *RE* 2, Reihe 3, 1648, 18–25. A περὶ φιλοσοφίας is ascribed to Xenocrates also (*Diog. L.* 4, 13), but no indication of its literary form is given.

be added I cite only one that is precisely parallel to that in 404 B 19: Χρύσιππος ἐν τοῖς περὶ τῶν στερητικῶν λεγομένοις (Simplicius, Categ. 396, 20 [Kalbfleisch]).

Among the later authors cited by S. as referring to the περὶ φιλοσοφίας by title the only ones who may themselves have seen the work to which they thus refer are Philodemus and Cicero (Aristotle, frag. 26 [Rose]) and Alexander of Aphrodisias (Metaph. 117, 24).¹ It was probably from the genuine Alexander's references to the De Philosophia that the later commentators derived directly or indirectly whatever awareness they had of such a work. That this holds for Syrianus, Simplicius, and Philoponus S. admits (11–12; 19, n. 1; 45). The source of Porphyry's unique reference to the Περί φιλοσοφίας (Stobaeus 3, 579, 18–21 [Hense] = Aristotle, frag. 3 [Rose]) is now known to have been Didymus – or through him Hermippus (Pap. Soc. Ital. 9, 1929, Nr. 1093), from whom Diogenes Laertius also drew his one explicit reference to the work (Prooem. 8 = frag. 6 [Rose] = Hermippus, frag. 78 [Müller, F. H. G. 3, 53]). Priscian's words, . . . *quae quasi in dialogis scripta sunt de philosophia et de mundis* (Sol. ad Chosroem 42, 2–3), which according to S. (12, n. 1) imply that the work was accessible to him, refer not to titles but to subject matter² and so were probably not meant as a reference to the De Philosophia at all. Thus Asclepius (Metaph. 112, 17–19) in writing . . . ἐπαγγέλλεται . . . ἀπορεῖν περὶ αὐτῶν καὶ ἐπιλύεσθαι ἐν τοῖς περὶ φιλοσοφίας was referring, as is proved by his remarks in 113, 16–20; 137, 11–24; 173, 11–16; 222, 6–7. 13 ff; 225, 6–8, to the aporiae in B and the solutions in Γ and the following books of the Metaphysics and not at all to the De Philosophia as some modern scholars have thought.³

This passage S. does not mention, but he goes to great lengths (7–10) to explain another passage of Asclepius (Metaph. 3, 32–33) because he adopts Festugière's notion that there the De Philosophia is referred to with the phrase ἐν τοῖς περὶ σοφίας λόγοις. This notion rests upon the similarity of the preceding lines (3, 30–31) to a passage in Philoponus' commentary on Nicomachus believed by Bywater to be a fragment of the De Philosophia and now printed as such by Ross.⁴ To these texts S. adds Philoponus, Anal. Post. 332, 8–12, which he says is «exactement celui auquel Asclépius fait allusion». Philoponus in these two passages cites Aristotle, but without naming the work that he is paraphrasing. This he does, however, in two other passages apparently unnoticed hitherto in this connection. One of these, in the very commentary that contains Bywater's supposed fragment,⁵ shows that what comes from Aristotle in that supposed fragment is only the clause τὰ νοητὰ καὶ θεῖα . . . καὶ ἀμυδρά (a 10–12 [Hoche] = 76, 4–7 [Ross]); and the source of this it identifies as ἐν τῷ μετὰ τὰ φυσικά ἐλάττονι ἄλφα, i. e. 993 B 7–11. So S.'s two texts of Philoponus contain no fragment of any lost Aristotelian work at all, and consequently there is no reason to suppose that his passage of Asclepius refers to the De Philosophia.

In commenting on 404 B 19 both Simplicius (De An. 28, 7–9) and Philoponus (De An. 75, 34–76, 1) say that by περὶ φιλοσοφίας here Aris-

¹ This passage of the genuine Alexander S. treats later (14). He does not mention the fact that a Περί φιλοσοφίας is listed in the ancient catalogues of Aristotle's works (Rose, Fragmenta, pp. 3, 3; 11, 3; 19, no. 1a).

² Otherwise 'de mundis', which Allan thinks should «obviously» be emended to 'de mundo' (ClRev N. S. 6, 1956, 225), would have to mean the περὶ κόσμου and *quasi in dialogis scripta sunt* would then show that Priscian had no first-hand knowledge even of that work.

³ W. D. Ross, Aristotelis Fragmenta Selecta, 73 and Select Fragments, 78; Bignone, L'Aristotele Perduto 2, 522, n. 1; both anticipated by Hayduck in his editio of Asclepius, 505 (Loci Aristotelici).

⁴ Aristotelis Fragmenta Selecta, 76, 1–8 = Philoponus, In Nicomachi Arith. Isagogen α I 1 α 8–13 (Hoche); cf. Bywater, Journal of Philology 7, 1877, 64–75, and Festugière, La Révélation d'Hermès Trismégiste 2, 587–591.

⁵ In Nicomachi Arith. Isagogen A I 1 γ 33–40 (p. 3 [Hoche]). The other passage is Philoponus, De An. 23, 28–24, 3, where the source is given as the Metaphysics without specification of the book.

totle means his *περὶ τέχνης*. This being an evident confusion of two different works, S. admits (11–12. 45–46) that neither commentator could have known either work at first hand; but he contends (11, n. 2; 43. 44) that there must have been a single wellknown text to which both are here referring and of which their subsequent remarks (Simplicius 28,12–29,23; Philoponus 76,1–78,26) are résumés, that this was «certainly a Neopythagorean elaboration of the authentic De Bono of Aristotle», and that its Aristotelian authenticity must have been verified by comparison with the fragments of the De Bono preserved by Alexander. Evidence not mentioned by S. shows this hypothesis to be quite improbable.

When in Physics 194 A 36 Aristotle refers to his De Philosophia, both Simplicius (Phys. 304, 1–3) and Philoponus (Phys. 237, 26–27) say that by *περὶ φιλοσοφίας* he means the Ethics. It did not occur to either of them that this might be the title of a separate and distinct Aristotelian work. What knowledge Simplicius had of Aristotle's *περὶ τέχνης* he derived by his own admission (Phys. 151, 6–19; 454, 17–22) from Alexander and Porphyry; and that Philoponus had never seen what he thought to be the Aristotelian report of Plato's *ἄγραφοι συνοψαί*, which in De An. 75, 34–35 he identifies with the De Bono and says is meant by *περὶ φιλοσοφίας*, he makes certain by his remarks in De Gen. et Corr. 27, 9–11 and 226, 17–30. This last passage also suggests that his additional statement in De An. 75, 35–36 which S. thinks so important – *ἔστι δὲ γνήσιον αὐτοῦ τὸ βιβλίον* – had its source in the passage of Alexander on the De Gen. et Corr. to which he there refers (226, 17–30). Alexander had there declared spurious αἱ Πλάτωνος διαίρεσις which was circulating in his time and so probably had explicitly asserted the authenticity of the Aristotelian compendium of Plato's *ἄγραφα δόγματα* which he suggested Aristotle might have had in mind in 330 B 16. So neither Simplicius nor Philoponus thought that he had himself seen Aristotle's De Bono. Nor can their subsequent commentaries on 404 B 19–24 be résumés of such a single text as S. assumes. They are similar to the extent that both read into the text of the De Anima itself Neoplatonic doctrine held by both their authors, e. g. that of the *τάξεις τῶν ὄντων* with the *εἶδη* manifested *ὁκείως* on each level (cf. Simplicius 29, 20–30 and Philoponus 77, 13–20¹ with Proclus, In Parm. cols. 795,35–796,14; 951, 10–19 and Syrianus, Metaph. 112, 16–19; 113, 15–24; 129, 5–13); but they are also significantly different from each other. So, for example, their interpretations of *αὐτοζῶον* are different;² point, line, plane, and solid are *πρὸ τῶν φυσικῶν* for Simplicius (28, 27–30) but for Philoponus *ἐν τοῖς αἰσθητοῖς* (77, 27–29), i. e. lower than *τὰ φυσικά* (76, 22; 77, 1–2. 17–21); and the doctrine that every *εἶδος* is decadic is stressed in Philoponus' exposition (76, 2–3; 77, 11–12; 80, 25–26) but is absent from that of Simplicius. Nor can Philoponus himself be merely

¹ The *θεῖα καὶ ἀθάνατα* and the *θνητά* here are not, as S. asserts (44), a «division de l'αὐτοζῶον» but are two different levels below it.

² To Simplicius (29, 15–20) it is the *νοητὸς διάκοσμος* but to Philoponus (77, 5–11; 79, 13–16; 81, 2. 9–11) just the idea of living being. Later S. (49), noting this, rightly approves the interpretation of Philoponus, though he mistakenly says that according to Philoponus (77, 26–27) the *αὐτοζῶον* comprises in itself the four species enumerated in Timaeus 39 E–40 A, for, in fact, he does not include them in the *νοητά*, the level of the *αὐτοζῶον*, but identifies them – and does so expressly as a guess – with the tetrad *ἐν τοῖς φυσικοῖς* (77, 23–27). That there are these four species of living beings in the universe had long since become a notion not ascribed to Plato alone (e. g. Aetius 5, 20,1; S. V. F. 2 Fr. 1014; Simplicius, Categ. 69, 27). Nor does the interpretation of *αὐτοζῶον* indicate that in this passage Philoponus depends upon a source in which De Anima 404 B 19 ff was interpreted by allusion to the Timaeus, for Philoponus regularly interprets *αὐτοζῶον* in this sense (Anal. Post. 241, 26–242, 8; 243, 21–25; Phys. 240, 3–4; In Nicomachi Arith. Isagogen A VI 1 μδ 4–8; De Aet. Mundi 28,26–29,2; 637, 24–26 [Rabe]).

summarizing a single source, for he gives alternative interpretations (76, 3-8; 77, 32-78, 5; 79, 11-16 [where 11-13 refers to 77, 13-29 and 78, 30-31]), he admits his inability to fit all the details of his scheme of interpretation together (77, 23-25), he uses elsewhere in different contexts the arguments with which he here identifies *δοξαστά* and *φυσικά* (76, 22-30; 76, 35-77, 1), and what he says of *φαντασία* (78, 24-26) is a doctrine to which he subscribes himself, while his *παρελείπομεν* there indicates that the whole of the preceding account has been put together out of different elements.

S.'s treatment of these two expositions is quite inadequate; but, what is more important, he fails to mention two later passages which show that both Simplicius (30, 20-24) and Philoponus (81, 17-31) connected 404 B 18-27 not with the preceding account of Plato's *Timaeus* but with the following reference to Xenocrates in B 27-30.

The passage in question is explicitly connected with Xenocrates by Themistius, who after his explanation of 404 B 18-21 (*De An.* 11, 20-37) says *ταῦτα δὲ ἅπαντα λαβεῖν ἔστιν ἐκ τῶν περὶ φύσεως Ξενοκράτους* (11, 37-12, 1).¹ S. tries (37-43) to discredit this testimony and to persuade himself that Themistius took the whole of 404 B 16-27 to be a résumé of Plato's own doctrine.

That 11, 20-37 can have come from Xenocrates S. denies on the following grounds: 1) Xenocrates would not have referred to himself as *οἱ ἄνδρες ἑαῖνοι* (11, 21); 2) what Aristotle reports of Xenocrates' theories is not recognizable in 11, 20-37; 3) the Neopythagorean origin of the whole passage is betrayed by the hemistich in 11, 27; 4) no Platonist would have used the pleonasm, *τὴν τῆς πρώτης δυνάμεως* (scil. *ἰδέαν*) etc. in 11, 29-30; and 5) the content of the last lines of the passage derives from a Pythagorean doctrine set forth in *Theol. Arith.* 84, 7 ff (*De Falco*), i. e. Speusippus, *Fr.* 4 (*Lang*), a passage which S. also declares a piece of Neopythagorean pseudepigraphy.

The first of these objections is a mere misapprehension, for 11, 20-37 purports to be not direct quotation of the *Περὶ φύσεως* but a résumé of its doctrine by Themistius, who with *οἱ ἄνδρες ἑαῖνοι* refers to its author, i. e. to Xenocrates.² This disposes of the fourth objection as well, but in addition there is a parallel to the supposedly improper pleonasm in Plato's own phrase, *ἰδέαν τινα αὐτοῦ κάλλους* (*Republic* 479 A; cf. also Aristotle, *Metaphysics* 1081 A 9-10; 1080 B 21-22).

¹ He begins his treatment of 404 B 18 ff with the words (11, 18): *ὁμοίως δὲ καὶ ἐν τοῖς περὶ φιλοσοφίας διώρισται*. This implies that he took *ἐν τοῖς περὶ φιλοσοφίας λεγόμενοις* to refer to a work or a part of a work called *περὶ φιλοσοφίας*, while his *διώρισται* without an agent expressed indicates that he took the agent of Aristotle's *διωρίσθη* to be Aristotle himself (cf. *De An.* 54, 13-14), although his comment (*Phys.* 43, 9) on *Physics* 194 A 36 shows that he had no knowledge of Aristotle's *De Philosophia* either.

² This ought to be obvious; and yet O. Becker (*Zwei Untersuchungen zur antiken Logik*, 1957, 5) assumes that *οἱ ἄνδρες ἑαῖνοι* were Xenocrates' own words and so argues that they must have referred not to himself but to a «pythagorisierenden Platoniker in der alten Akademie». Themistius' use of the plural does not mean either as Kucharski contends (*Arch. de Philos. N. S.* 1, 1955, 21. 35) that he is referring to a group of people rather than to Xenocrates. This allusive plural in referring to a single person is common Greek usage (cf. Gildersleeve, *Syntax* 1, 1900, 27). Aristotle uses it in referring specifically to Plato (*Metaphysics* 1078 B 11-12, *Eth. Nic.* 1096 A 13. 17 compared with singular in 987 B 7-8) and to Xenocrates (*Metaphysics* 1028 B 24-27; 1069 A 35; 1080 B 22-23. 28-30; 1086 A 5-11; 1090 B 31-32); and in referring to Speusippus he uses this plural and the singular indiscriminately in a single passage (1085 A 32. B 7-8. B 21. B 23. B 28), as he does in another in referring to Plato (1090 B 32 - 1091 A 5). Themistius rightly did not doubt that in the passage which he quotes from Andronicus (*De An.* 32, 24-31) the plurals *ἐκάλουν*, *ἀπεφαίνοντο*, *οὗτοι* . . . *ἐποιοῦν* . . . *ἀφορίζόμενοι* all mean Xenocrates and no one else.

As to the second and third objections, the theory of 11, 20–27 makes the ideas numbers that are composites of units, thus in fact identifying the ideas with mathematical numbers, a characteristic which according to Aristotle was distinctive of Xenocrates' theory;¹ and Xenocrates, who wrote a work *Πυθαγόρεια* and adapted to his own use the term *ἰδέα* from the Pythagorean verse on the tetraktys (Fr. 28 [Heinze], cf. Aristotle on Plato, 1, 484–485), may very well have quoted for his own purpose the hemistich, ἀριθμῶ δὲ τε πάντ' ἐπέσσυται, which Aristoxenus also paraphrased (Stobaeus, 1, 20, 5–6 [Wachsmuth]).

S.'s fifth objection fails both because his rejection of the Speusippean fragment is unfounded² and because of the significant differences between it and what Themistius ascribes to Xenocrates in 11, 27–37. In both passages the line is associated with 2, the triangle as the first plane figure with 3, and the pyramid as the first solid with 4; but so much can have been common to Speusippus and Xenocrates. Xenocrates should have differed from Speusippus, however, by identifying these numbers with ideas; and in the passage of Themistius they are called the ideas of line, plane, and solid, as they are not in the passage of Speusippus. In the Speusippean fragment, moreover, one corresponds to the point, which is the first principle of magnitude (84, 10. 15; 85, 22 [De Falco]), a peculiarity of Speusippus' theory according to Aristotle; but in the other passage the point is not associated with the idea of one, and line, plane, and solid, of which 2, 3, and 4, are the ideas, are alone given as constitutive of magnitudes. Finally, in the Speusippean fragment there is no mention of αὐτοζῶον, the constitution of which is the subject of the passage of Themistius. Here (11, 28; cf. 12, 1–2) αὐτοζῶον is explained as ὁ νοητὸς κόσμος, and this S. later (49, n. 1) gives as another reason for regarding the passage as pseudepigraphic; but, even if Xenocrates did not use αὐτοζῶον in this sense – as I think he probably did not –, Themistius, finding it used without explanation, may himself in his résumé have added the gloss, τούτῳ τοῦ κόσμου τοῦ νοητοῦ, thus giving it an interpretation that had long since become common.³

S.'s further suggestion (41) that Themistius took his citation of Xenocrates from Andronicus would, if true, make it still more unlikely that 11, 20–37 represents a Neopythagorean forgery and would moreover indicate that Andronicus himself had taken 404 B 19–21 to be the doctrine of Xenocrates. Where Themistius quotes Andronicus, however, and distinguishes his interpretation of Xenocrates from Porphyry's, he appeals against both to the *περὶ φύσεως* of Xenocrates and even to a specific book of it,⁴ which proves at the least that his knowledge of that book was not derived from An-

¹ Metaphysics 1028 B 24–27; 1080 B 22–23. 28–30; 1086 A 5–11; 1083 B 1–8 contrasted to 1083 A 32–35 on Plato; cf. L. Robin, *La Théorie Plat. des Idées et des Nombres* 437–441.

² His only real argument (40, n. 2) is the impassioned enthusiasm for Pythagorean doctrine and the insistence upon the Pythagorean source expressed in 82, 12–13 (De Falco). These lines do not pretend to be part of the fragment, however; they contain an assertion not of Speusippus but of the author of the *Theolog. Arith.* or of his source, and this assertion could be false without affecting the authenticity of the fragment at all.

³ It was known to Aëtius (Dox. Graeci 305b 1–3; 334a 10–12. b 1–3), to Plutarch (De Iside 373 B), to 'Timaeus Locrus' (97 D), and, of course, to Philo Judaeus; and so of itself is not evidence of a Neoplatonic source. In any case, S.'s notion (48, n. 1) that Xenocrates avoided αὐτοζῶον altogether because he used αὐτοζῶν (sic) to designate the soul itself is a false inference from Philoponus, De An. 165, 18–28, where the explanation of 'self-moving' in Xenocrates' definition of soul by διὰ τὸ αὐτοζῶν (sic Hayduck) αὐτῆς· οὐ γὰρ ὑφ' ἑτέρου αὐτῇ τὸ ζῆν· αὐτοζῶν γὰρ ἔστιν employs the Neoplatonic terminology regularly used by the commentators and is no evidence at all for Xenocrates himself (cf. Hermias, In Phaedrum 109, 16–21 [Couvreur]; Simplicius, De An. 246, 21–25; 287, 33–38 and Phys. 824, 17 ff; Proclus, El. Theol. prop. 189 and In Timaeum 2, 244, 1–3. 12–18 [Diehl]).

⁴ De An. 31, 1–5 and 32, 20–34. From these passages S. (41, n. 1) quotes a selection that misrepresents their meaning; and in addition he grotesquely asserts that ὅτι

dronicus or from Porphyry. He does not say that in this work is also to be found his explication (12, 5-27) of 404 B 21-27, although 12, 5 and the verbs in 12, 8. 15. 18 show that he takes the doctrine here still to be that of οἱ ἄνδρες ἐκείνοι of 11, 21. S. dismisses 12, 5-13 as «lieux communs scolaires» and says (41-42, cf. 38) that in 12, 13-27 Themistius instead of paraphrasing 404 B 24-27, «qui est entièrement passé sous silence», has inserted a résumé of Platonic doctrine from the De Bono which he very possibly got from Alexander's commentary on the De Anima. In fact, 404 B 25-27 (κρίνεται . . . αἰσθῆσαι) is paraphrased in 12, 5-7 (ἐπειδὴ . . . αἰσθῆσαι), and 404 B 24-25 (οἱ μὲν . . . στοιχείων) together with B 27 (εἶδη . . . πραγμάτων) in 12, 13-15 (τῶν μὲν . . . ἀόριστος).¹ Moreover, neither in the attested fragments of the De Bono nor even in those claimed for it in Wilpert's work to which S. refers is there any mention of the doctrine developed in the explanatory material here that the principles of ideal number, the one and the indefinite dyad, are principles of soul as well (12, 23-27; cf. 12, 14-16), whereas such a theory is attested for Xenocrates (Fr. 68 = Plutarch, De An. Proc. in Timaeo 1012 D-E).

Themistius, having come to the sentence in 404 B 27-30, ἐπεὶ δὲ καὶ . . . ἔνοι . . . , writes (12, 28-33): οὕτω μὲν οὖν καὶ ὁ παρὰ Πλάτωνι Τίμαιος καὶ αὐτὸς Πλάτων . . . ἦσαν δ' ἕτεροι . . . S. (42-43) sees that ὁ παρὰ Πλάτωνι Τίμαιος here must refer back to 404 B 16-18 and the commentary on it in 10, 23-11, 18; but he insists that αὐτὸς Πλάτων refers to 404 B 18-24 and the commentary on it in 11, 18-12, 27, which he thus makes Themistius identify as Plato's own doctrine in distinction from that of the Timaeus. That no such distinction was intended by the compound subject is indicated by the fact that contrary to S.'s assertion (42, n. 2) Themistius regularly ascribes to Plato himself the doctrines expounded in the Timaeus,² the one apparent exception (19, 17-24, 12) being occasioned by Aristotle's own use of ὁ Τίμαιος as subject in De Anima 406 B 25 ff upon which Themistius seizes to defend Aristotle's critical procedure there (19, 23-20, 8). Here too it is Aristotle's expression Πλάτων ἐν τῷ Τιμαίῳ (404 B 16), paraphrased before simply as ὁ Τίμαιος (10, 23; 11, 12), that he now interprets more fully with καὶ ὁ παρὰ Πλάτωνι Τίμαιος καὶ αὐτὸς Πλάτων (12, 28); this phrase, far from distinguishing two expositions, stresses the fact that the doctrine of 404 B 16-18 as explained in 10, 23-11, 18 belongs to Plato himself.³ The whole of οὕτω μὲν οὖν . . . ἀποδιδόσιν (12, 28-30), which is a resumption of 11, 16-17, refers back to the report of the Timaeus and indicates that that alone is what Themistius understands to be Plato's doctrine. In the next sentence (12, 30-33) with διὰ μὲν τοῦ ἀριθμοῦ τὴν γνωστικὴν δύναμιν ἐνδευνόμενος he picks up the conclusion, συγκεκμημένη οὖν . . . τὰ ὄντα (12,

in 32, 32 «désigne Andronicus», whereas it is the object of εἶπον, meaning 'as I said' and referring back to 31, 1-5.

¹ In 12, 14 the meaning is not «les formes et le nombre idéal» (42) but 'the forms, i. e. ideal number'. S.'s «proportions» (41) for προτάσεων (12, 11) is probably a misprint; but his translations (38-42) of 11, 20-12, 27 bristle with mistakes, of which the following are samples. In 11, 21 he takes (39) παντάπασιν with ὑπελάμβανον, whereas it modifies πόρρωθεν εἶναι. In 12, 7-12 he has mistaken the objects of ἔχειν for its subjects and so has inverted the meaning 'that it (scil. the soul) has intelligence from the idea of one, . . . ' into «que l'intellect possède cette saisie à partir de l'idée de l'un, . . . » etc. (41). He uses 'ajouter' to mistranslate (42) ὑπετίθεσαν (12, 15), παραχθείη (12, 17), and παρ-υποστάσης (12, 21). The climax is «la matière dans les corps est l'image de l'un» (42), given as a translation of the words in 12, 22 which mean: 'the matter in bodies is the image of the indeterminate dyad as the materiate form is the image of the one'; here S. has mistaken the antecedent of ταύτης in 12, 22 and has simply overlooked the words ὥστε τοῦ ἑνὸς τὸ ἔνυλον εἶδος which follow immediately in 12, 23.

² E. g. αὐτῷ Πλάτωνι in De An. 35, 34-36 where Timaeus 34 B 3-4 is quoted. Cf. De An. 37, 4-6. 25-27 and 93, 33-94, 2; 96, 27-28; 106, 15-16; 111, 24; Anal. Post. 60, 2; De Caelo 140, 16-18; 212, 6-213, 37; 244, 21.

³ Cf. Proclus, In Rempublicam 1, 165, 25-28 (Kroll): ὁ δ' αὖ Πλάτων, ἡ εἰ βούλεσθε λέγειν ὁ παρὰ τῷ Πλάτωνι Τίμαιος, . . . αὐτὸς . . . παραδίδωσιν . . .

26-27), of 11,18-12,27, his explication of 404 B 18-27, which¹ he thereby shows is meant to refer to him who, holding that the soul is γνωριστικὸν οὕτως (404 B 28), is not Plato but ὁ τὴν ψυχὴν ἀποφηνάμενος ἀριθμὸν κινουῦντα ἑαυτὸν (12, 31-32), i. e. Xenocrates (cf. 31, 1-32, 34).

By Iamblichus, on the other hand, 404 B 18-27 was certainly taken to be a report of Plato's doctrine, for in the fragment of his *De Anima* preserved by Stobaeus there is a paraphrase of 404 B 19-24 (διωρίσθη . . . τὸν τοῦ στερεοῦ) which begins ὥς δ' Ἀριστοτέλης ιστορεῖ, Πλάτων . . . and ends with διοριζόμενος (1, 364, 12-18 [Wachsmuth]).

This testimony S. (34-37) stresses to the utmost, first asserting that the statements of Iamblichus in this treatise are beyond suspicion of negligence or error and then hinting that in 364, 12-18 Iamblichus preserves an earlier tradition because he may have taken ready-made from a previous compilation the assemblage of texts which he gives in this work. For this latter assumption there is neither evidence nor reason. Iamblichus makes his point of departure a criticism of Aristotle's criteria for classifying earlier theories of the soul (363, 3-10). His summary of this classification (362, 24-27) is a conflation of the expressions in *De Anima* 403 B 25; 405 A 6-7. 23-25; 405 B 10-12; 409 B 18-21; and 363, 16-18 has been taken from 404 A 1-2 as have 366, 12-17 from 405 B 23-29 and 366, 17-20 from 410 B 28-30. That in 364, 12-18 he was drawing directly on *De Anima* 404 B 19-24 is revealed by the close correspondence of phraseology in the two passages;² and, this being granted, what is really significant is his Πλάτων . . . διοριζόμενος, for the latter word shows that he simply supplied 'Plato' as the logical subject of Aristotle's διωρίσθη in 404 B 19 and suppressed the immediately preceding ἐν τοῖς περὶ φιλοσοφίας λεγομένοις. He also omitted τὰ δ' ἄλλα (or τὰς δ' ἄλλας) ὁμοιοτρόπως. ἔτι δὲ καὶ ἄλλως (b 21-22), and by substituting for this προὑποτιθέμενος καὶ (364, 15) he gave a specious unity to what Aristotle's own words show were two different aspects of a doctrine that he had himself juxtaposed.³ From this it appears that in ascribing to Plato the doctrine in 404 B 19-24 Iamblichus was giving his own interpretation of this passage, an interpretation that would not be above suspicion even if his reliability in such matters were all that S. asserts, as it demonstrably is not.⁴

¹ ἐκ τῆς τοῦ ἐνὸς ἰδέας καὶ τοῦ πρώτου μήκους (καὶ πλάτους) καὶ βάθους and τὸ μὲν ἐν νοῦν, τὴν δὲ δυάδα ἐπιστήμην, δόξαν δὲ τὸν τοῦ ἐπιπέδου ἀριθμὸν, τὸν δὲ τοῦ στερεοῦ [τὴν] αἰσθησιν (364, 14-17) must have been taken straight from 404 B 20-21 and 22-24. The αὐτὸ τὸ ζῶον of 404 B 19-20 is represented in the MSS of Stobaeus by αὐτὸ τοῦτο ζῶν (364, 15); Usener's emendation of this, adopted by Wachsmuth, is rejected by S., who emends it instead to αὐτὸ τοῦτο τὸ ζῶον and takes it to refer to the κόσμος in κοσμοουργοῦ θεοῦ (364, 11), an improbable construction which would in any case not justify the further assertion (36): «τὸ ζῶον est donc ici une expression reprise du *Timée* (30 C ss., παντελὲς ζῶον, 31 B 2)». S. fails to notice that this would make Iamblichos identify the παντελὲς ζῶον of the *Timaeus* with «cet univers» in «du dieu créateur de l'univers» (S.'s translation on 35).

² Cf. Aristotle on Plato 1, 574. For another and more extreme example of this practice of Iamblichus cf. *De Comm. Math. Scientia* 21, 19-20 (Festa), where he produces a consecutive passage by inserting his own words τῶν . . . τὸν ὅλον after ἐκάσταις ταῖς of *Epinomis* 991 C 3 and before κόσμον of *Epinomis* 986 C 4.

³ See for example the preceding note and within this fragment of the *De Anima* itself Festugière, *La Révélation d'Hermès Trismégiste* 3, 1953, 182, n. 8 and 183, n. 1 (on 364, 23-25); 186, n. 1 (on 366, 12-17); 207, n. 4 and 208, n. 1 (on 374, 21-24); 217, n. 5 (on 377, 16-29). Cf. also 369, 6-17 with its source, the passage of Porphyry in 350, 13-25. Even Simplicius (*Categ.* 41, 21-24) convicts Iamblichus of misreading or misrepresenting the text before him; and his prestige certainly never rested upon his scholarly reliability (cf. Damascius, *Vita Isidori* 34 = Photius, *Bibl.* 337b 6-9 [Bekker]; Olympiodorus, *In Phaedonem* 57, 4-7 and 132, 7-16 [Norvin]; David, *In Porphyri Isagog.* 92, 2-7; Elias, *Categ.* 123, 1-3).

S. seems himself to admit the fragility of his attempt (33–34) to elicit earlier evidence for his thesis from a phrase in Plutarch's *De An. Proc.* in Timaeo 1014 D.

In fact, though the words there, οὔτε μήκη καὶ πλάτη λέγεσθαι νομιστέον, do refer to such interpretations of Timaeus 35 A as that of Posidonius, δεξάμενοι τὴν τῶν περάτων οὐσίαν περὶ τὰ σώματα λέγεσθαι μεριστήν (1023 B), there is no reason at all to assume, as S. would do, that μήκη καὶ πλάτη is a direct quotation from Posidonius or that, even if it is, Posidonius must therefore have appealed to the doctrine reported in the *De Anima*¹ – all the less so since there the πρῶτον μῆκος καὶ πλάτος are numbers whereas his πέρατα are the bounding surfaces of corporeal figure (cf. Proclus, *In Euclidem* 143, 8–21 [Friedlein]) and his interpretation is consequently connected with that of Speusippus (Iamblichus in Stobaeus, *Ecl.* 1, 364, 4–5 [Wachsmuth]), which neither Aristotle nor S. mentions but which Iamblichus himself distinguishes as geometrical from the arithmetical doctrines among which he gives the paraphrase of *De Anima* 404 B 19–24.

Contrary to S.'s assertion, therefore, what he calls the tradition of the commentators is by no means at one in identifying the author of the doctrine referred to in *De Anima* 404 B 19–27. Still less tenable is his contention that the attribution of it to Plato is confirmed by Aristotle himself in *Metaphysics* 1036 B 13–17 and 1090 B 20–32.

According to 1036 B 13–17, among the proponents of the ideas οἱ μὲν say that the dyad while οἱ δὲ say that τὸ εἶδος τῆς γραμμῆς is αὐτογραμμῆ. S. (32–33) seems to construe B 14–15 correctly in this way;² but he then represents B 15–17 (ἓνια μὲν . . . οὐκέτι) as Aristotle's critique, whereas it is the reason ascribed to οἱ μὲν for making 'line itself' something other than line, and he gives a paraphrase of it which corresponds to nothing in the text («car, dit Aristote, . . . que son élément formel soit la dyade comme le soutient le vieux Platon, ou tout autre forme . . .»). Aristotle's critique, which follows in B 17–20 (συμβαίνει δὲ . . .) and which S. does not mention, is directed exclusively against οἱ μὲν and their explanation in B 15–17;³ and it shows again that οἱ μὲν identify as idea of line the dyad (instead of 'linear form', as οἱ δὲ do), and not, as S. contends, that they make the dyad while οἱ δὲ make something else unspecified «le principe formel de la ligne idéale».⁴ Now, αὐτογραμμὴν . . . οἱ δὲ τὸ εἶδος τῆς γραμμῆς

¹ The further assertion that he could have known it only from the *De Philosophia* rests on the assumption that the 'Lehrschriften' became available only after his death. Yet S. knows and appears to accept Düring's proof that this assumption is false and is peculiarly unjustified for Rhodians (Göteborgs Högskolas Årsskrift 56, 1950 [3], 60). That Posidonius knew the *De Anima* is proved by comparison of 411 B 6–10 with Achilles, *Isagoge*, chap. 13 (41 [Maaß], cf. Edelstein, *AJPh* 57, 1936, 299, n. 53); for his use of the treatises of Aristotle and Theophrastus cf. Simplicius, *De Caelo* 700, 3–8.

² So also Asclepius, *Metaph.* 419, 35–420, 1; [Alexander], *Metaph.* 513, 3–6; *Cod. Vat. Urb.* 49, fol. 82b. Ross (*Plato's Theory of Ideas*, 207) persists in the mistranslation by which he had led astray Van der Wielen among others (cf. *AJPh* 68, 1947, 250, n. 93).

³ So all the commentators cited in the preceding note. For ἓνια μὲν γὰρ κτλ. connected not with οἱ δὲ but with οἱ μὲν cf. *De Anima* 404 B 10–12, where ὥσπερ Ἐμπεδοκλῆς is an example not of the immediately preceding οἱ δὲ but of οἱ μὲν.

⁴ That this is what dyad here means is not proved, as S. asserts it is (33, n. 1), by *Metaphysics* 1043 A 33–34 any more than the other examples in 1043 A 31–37 imply that οἱ μὲν in 1036 B 14 held σκέπασμα and ψυχὴ to be the formal elements of the ideas of οὐκία and ζῶον respectively. To neither of the two doctrines of 1036 B 13–17 is either of the alternatives in 1043 A 29–37 parallel, because in the former passage the two are divided not on the question raised in the latter but only in their views of what the idea alone is. In the latter passage the alternative, δυάς or δυάς ἐν μήκει, refers, as the other

is the way in which Aristotle speaks when he criticizes the ideas for being the same in kind as the particulars of which they are ideas, αὐτοὶαῖστα differing from their particulars only in being 'eternal' (997 B 5-12; 1040 B 30-34; 1059 A 10-14). Since he so represents the 'original' doctrine (1086 B 7-11; Eth. Nic. 1096 A 34 - B 5 [cf. 1096 A 13-17]) and in one such context (997 B 12-15) even mentions ideal line in connection with the 'intermediate mathematical', which he always ascribes to Plato in distinction from Xenocrates (e. g. 1028 B 19-27; 1069 A 34-35; 1086 A 5-13), it should follow that οὐδὲ here too means Plato and οὐ μὲν someone else. Disregarding all this, S. insists that οὐ μὲν refers to Plato and that Xenocrates is among the οὐδὲ if he is referred to here at all, - an assertion which would make Xenocrates, contrary to everything reported of him, identify the idea of line (or according to S. its «élément formel») with something other than number and which of itself therefore proves S.'s interpretation to be wrong.¹ He is committed to it, however, because the doctrine of οὐ μὲν here is, as he says (33, n. 1), the same as that described in 1090 B 20-27 and, if that was not Plato's, it cannot be Plato to whom Aristotle refers in 404 B 19-27 either.

In arguing that 1090 B 20-27 describes Plato's doctrine, S. (26-32) tries to eliminate from 1090 A 2 - 1091 A 12 all serious reference to Xenocrates. He asserts (26) that in 1090 A 4-15 only the theories of the 'aged Plato' and of Speusippus are introduced and that «c'est entre elles deux que va se dérouler toute la discussion». Neither of these statements is justified by Aristotle's text. The formulation in 1090 A 5-6, 'each of the numbers is an idea', is strictly not true of the theory ascribed to 'the aged Plato', in which there are non-ideal numbers, but does fit the theory ascribed to Xenocrates and also that of the anonymous Platonist in 1080 B 21-22. The later formulation in 1090 A 16-17 can cover the theories ascribed to both Plato and Xenocrates but could be meant to refer to the latter alone (as the similar formulation in 1086 A 5-6 certainly does), and S. has no reason for saying that it refers exclusively to Plato. He is wrong (27) in calling 1090 B 5-13 «un compte-rendu global platonicien», for the τινες of B 5-7 hold that the point is a φύσις² and this was denied by Plato according to a statement of Aristotle's (992 A 20-21; cf. Alexander, Metaph. 120, 2-5) which S. never mentions. His whole treatment of 1090 A 25 - B 13 is vitiated by his misinterpretation of A 25-28. Mistaking the antecedent of αὐτῶν in A 27, he makes the passage say that according to Speusippus there is no science of his separate mathematical numbers (26), which is the very opposite of its meaning. He then takes 1090 A 35 - B 1 to refer to Plato in distinction from Speusippus (whereas it represents the motivation of Speusippus himself)³ and ὁ ἐναντιούμενος λόγος κτλ. of B 2 to be the argument of Speusippus as he has already misinterpreted it in A 25-28 (whereas it is the argument which in

examples show, to Aristotle's own doctrine (1043 B 28-32; 1036 A 9-12; 1036 B 32 - 1037 A 5; De Anima 429 B 18-21); and, if he here glances at all at the doctrine reported in 1036 B 14-15, he does so by way of criticism and 'correction' and not to indicate that οὐ μὲν held a doctrine equivalent to his own.

¹ In short, Xenocrates can be only among οὐ μὲν. If then οὐ μὲν included both Xenocrates and Plato as De Vogel would have it (Mnemosyne 4 Ser 2, 1949, 303; cf. Kucharski, Arch. de Philos. N. S. 1, 1955, 37-38), who would οὐδὲ be to whom Aristotle here ascribes what fits precisely his description of the 'original' theory of ideas?

² The φύσις in B 7 does not prove, as S. says it does (27-28), that point, line, and plane here are 'ideal', for a distinct entity existing only in sensible objects and inseparable from them is a φύσις (De Anima 418 B 7-9; Parva Nat. 439 A 23-24; Metaphysics 1076 B 9-10 and 1077 B 25-27) as is also the separate, non-ideal number of Speusippus (1090 A 11-13) and any such number, whether it be 'immanent' or 'transcendent', 'ideal' or not (1080 A 15-16, cf. A 37 - B 4). The τινες φύσις of Iamblichus, Protrepticus 39, 4-6 (Pistelli) means not «les Idées elles-mêmes», as S. says, but 'any entities' whatever.

³ Cf. Lang, De Speusippi Academici Scriptis, 30 and Frs. 30. 46. 47. In S.'s paraphrase (27) of 1090 A 35 - B 1 his «qui habitent l'âme» is a grotesque misunderstanding of οἰκεῖν τὴν ψυχὴν (A 37).

opposition to Speusippus would make the ἀξιώματα apply to sensibles).¹ Nor is the question in B 13 evoked by the «flagrant inconsistency» between «the reasoning of Platonists» in 1090 A 35 – B 1 and in B 11–13; it is the conclusion of Aristotle's own argument in the latter passage, where S. (28) neglects the force of οὐ μὴν ἀλλὰ εἰ καὶ εἰσι and mistakes . . . ὁ λόγος εἰρηκεν for a reference to A 35 – B 1 instead of B 5–7 as it is (cf. [Alexander], Metaph. 815, 14–16).

So there is no reference to Plato at all from 1090 A 20 through B 20, for B 13–20 is unmistakably directed against Speusippus alone (cf. 1075 B 37–1076 A 4; 1028 B 21–24). The difficulty raised here about his theory is then said (B 20–24) to be avoided by τοῖς δὲ τὰς ἰδέας τιθεμένοις because they derive lines from the dyad, planes from the triad, and solids from the tetrad, i.e. not because of these particular numbers which they use² but just because they derive the magnitudes from the matter and number. Then comes at once (b 24 ff) a series of objections ending in B 31–32 with οὗτοι μὲν οὖν . . . διαμαρτάνουσιν, which is followed immediately by οἱ δὲ πρῶτοι δύο τοὺς ἀριθμοὺς ποιήσαντες . . . This distinction of ideal and mathematical numbers by which οἱ δὲ πρῶτοι are contrasted to those criticized in the preceding lines is the characteristic by which Aristotle elsewhere distinguishes Plato's theory (cf. B 32–36 with 1028 B 19–21, 1076 A 19–20, 1086 A 11–13) from that of Xenocrates, and the criticism in B 27–32 is that which is elsewhere reserved for the theory of Xenocrates (cf. 1083 B 1–8; 1086 A 8–11). While admitting that B 27–32 refers exclusively to Xenocrates, S. maintains (30–32) that it does so not as part of the critique of B 20–24 in B 24–27 but only «comme en passant» and that οἱ δὲ πρῶτοι refers back to B 20–24, which he thus makes the doctrine of the 'orthodox Platonists including Plato' of B 32 ff.

For this interpretation of οἱ δὲ πρῶτοι S.'s reason is that «Platon n'est pas 'le premier' qui a posé l'existence des deux catégories de nombres, pour Aristote il est le seul» (31, n. 5). In this he is contradicted both by his own assertion (32) that B 32 ff is the doctrine of «Platoniciens . . . dont Platon» and by the testimony of Aristotle,³ and so there is not even this lame reason for denying that οἱ δὲ πρῶτοι here, like ὁ πρῶτος in 1081 A 24 and 1086 A 11, is meant to refer to Plato as the 'originator'.⁴ Moreover, S. disregards both the improbability that οἱ δὲ πρῶτοι should mean 'the former' in contrast to οὗτοι μὲν, 'the latter', and the fact that in B 31 the phrase is not οὗτοι μὲν but οὗτοι μὲν οὖν. This is a 'resumptive' formula used to reiterate or recall after a discussion or a digression the subject already expressed;⁵ and in the present passage the only sub-

¹ It is not the Pythagorean argument, as Ross supposes (Metaphysics 2, 481 on 1090 B 2), but, as Pseudo-Alexander saw (Metaph. 814, 37–38), Aristotle's own position as stated in 1090 A 28–29 (misunderstood by S. [26]; cf. 1090 A 13–15; 1077 B 17–22; 1078 A 28–31), just as B 2–5 refers expressly to A 29–30.

² This is the meaning of the appended ἢ καὶ ἐξ ἄλλων ἀριθμῶν. διαφέρει γὰρ οὐθέν (B 24; cf. 1006 A 34; 1061 A 15–17) and not, as S. believes (29, n. 2), that different Platonists derived these magnitudes from different numbers nor yet what Robin suggested (La Théorie Plat. des Idées et des Nombres . . ., 295, n. 272^b). The ἴσως in B 23 implies no doubt about the doctrine; it has the ironical overtone of 'I dare say', 'of course' (cf. 987 A 26; Rhetoric 1401 B 37; Plato, Gorgias 471 C 8).

³ Far from suggesting that no one followed Plato in distinguishing ideal and mathematical numbers he refers explicitly to others who doing the same thing said that the latter but not the former are 'immanent in sensibles' (998 A 7–9, cf. 1076 A 38 – B 1).

⁴ For οἱ δὲ πρῶτοι with the plural verbs (B 32–36) changing to the singulars, ποιεῖ . . . ἐπεὶ . . . ἐπεὶ . . . κατ' ἐκείνον (1091 A 1–5) see page 40, note 2 supra. οἱ δὲ πρῶτοι δύο τοὺς ἀριθμοὺς ποιήσαντες . . ., which Ross and most others translate «those who first posited two kinds of number . . .», can equally well mean 'but the first (scil. of those who posited ideas), having distinguished two kinds of numbers, . . .'. Tricot, to whose translation S. (31, n. 5) refers as if it were the same as Ross's, construes the sentence in the latter sense, and Pseudo-Alexander (Metaph. 817, 1–5) seems to have done so too.

⁵ Cf. e. g. Physics 213 B 2; Metaphysics 985 A 10; 986 B 25; 988 A 32; 1018 B 29 (ταῦτα μὲν οὖν); 1070 B 16 (τούτων μὲν οὖν).

ject for it thus to resume is that of B 20–24, to which consequently οἱ δὲ πρῶτοι cannot refer but must be contrasted. Out of context the formula in B 20–21 (τοῖς δὲ τὰς ἰδέας τιθεμένοις) could refer to any and every exponent of the ideas; but introduced as it is here in contrast to Speusippus (B 17–18) and followed by the contrasting reference to Plato (οἱ δὲ πρῶτοι [B 32]) it can refer only to Xenocrates,¹ just as the formula in 1086 A 5–6, which of itself could also cover both Plato and Xenocrates, is used to refer exclusively to the latter by being contrasted to a preceding reference to Speusippus (1086 A 2–5) and a following reference to Plato (ὁ δὲ πρῶτος . . . [1086 A 11–13]).

Furthermore, the criticism in B 26–29 itself shows that B 27–32 cannot have been meant as a «passing reference» to Xenocrates. S. contends (30–31) that ἀλλὰ μὲν in B 27 «marque à la fois une nouvelle étape dans la pensée et le passage de Platon à Xénocrate»; but Ross's note on 996 B 1, to which he here refers, does not support his interpretation of ἀλλὰ μὲν and would be irrelevant if it did. The significant combination in B 27 is ἀλλὰ μὲν οὐδέ. This commonly introduces an additional objection to the doctrine or thesis under discussion.² So it does here too where Aristotle argues (B 26–29) that (a) these magnitudes contribute nothing to existing things either, just as the mathematical (scil. of Speusippus)³ do not, but further (b) no theorem even applies to them if one declines to change the nature of mathematical and make one's own peculiar assumptions. Aristotle never brings and could not reasonably bring either of these objections, much less both together, against anyone who distinguished between ideas and mathematical, as he says Plato did: according to his own account of this distinction (a) would be irrelevant as an objection to the mathematical magnitudes and (b) would be false, while with respect to the ideal magnitudes (a) would be an invalid inference and (b) would be irrelevant, for (a) what are comparable with the μαθηματικά of Speusippus are not the ideal magnitudes, which are supposed to contribute to existing things, but the intermediate mathematical, which are not, and (b) the objects to which theorems are supposed to be applicable are not the ideal magnitudes at all but the intermediate mathematical (cf. 997 B 1–3; 1028 B 19–21; 1080 B 23–25 [with B 11–14]). The argument of B 26–29 has force only if in Aristotle's opinion the magnitudes criticized were (a) intended to be mathematical (so that they could be said to have the same deficiency as those of Speusippus) and at the same time (b), though professedly the objects of theorems, were given characteristics incompatible with those of mathematical in the accepted (and Speusippean) sense. It is just so that he characterizes the μήκη, ἐπίπεδα, and στερεά which he says Xenocrates (in contrast to Plato

¹ This was recognized by Schwegler and Bonitz ad loc. and also by Ross in both the original (1924) and the revised (1953) editions of his Commentary on the Metaphysics 2, 481, who in the interim, however, without noticing his own Commentary said (Plato's Theory of Ideas, 1951, 209) that «it includes both Plato and Xenocrates» and that Xenocrates is exclusively referred to only in B 28–32 (ἐὰν μή τις κτλ., his earlier translation of which he silently recast for the purpose into the misleading «except for someone who . . .»). The force of οὗτοι μὲν οὖν and the meaning of B 26–29 are enough to show the untenability of this interim attempt by Ross to make 1090 B 20–24 refer to Plato.

² So the four passages with ἀλλὰ μὲν οὐδέ in the note of Ross's to which S. refers: 997 B 34 (which does not mark the passage from thesis to antithesis; cf. Alexander, Metaph. 200, 4–5. 28–31); 998 B 11 and 27; 999 B 5–6. See also 991 A 19; 992 A 18; 1047 A 7; 1071 B 37; 1085 B 31; Eth. Nic. 1096 B 3; De Caelo 295 B 3.

³ τὰ μαθηματικά in B 26 can refer only to the mathematical already criticized in B 15–19. This S. recognizes (30) – though he misses the significance of ὥσπερ οὐδέ . . . οὐδέ ταῦτα –, and so does Ross in both editions of his Commentary (2, 482 on 1090 B 26–27). Ross seems to have forgotten this in the interim when in his Plato's Theory of Ideas, 1951, 209 (see note 1 supra) he made nonsense of Aristotle's argument by writing that ὥσπερ οὐδέ τὰ μαθηματικά «shows that Aristotle has primarily in mind a thinker who distinguishes Ideas from the objects of mathematics, i. e. not Xenocrates but Plato».

and Speusippus) posited as μαθηματικά οὐ μαθηματικῶς δέ (1080 B 28–29, cf. B 24 ff) and the mathematical number which he says Xenocrates professed to identify with ideal number but in fact destroyed with his peculiar and unmathematical assumptions (1086 A 8–11, cf. 1083 B 4–6). So even without the statement in 1090 B 31–32¹ the argument of B 26–29 implies that the αὐτῶν of B 28 and the ταῦτα of B 27 – and so τὰ μεγέθη of B 21–24 – can be only the magnitudes of Xenocrates' theory and not «les grandeurs idéales de Platon».²

Syrianus, nevertheless, in commenting on 1085 A 13 says (Metaph. 154, 9–13): '... some said that the numbers themselves give the forms to the magnitudes, as dyad to line, triad to plane, tetrad to solid (τοιαῦτα γὰρ ἐν τοῖς περὶ φιλοσοφίας ἱστορεῖ περὶ Πλάτωνος), but others produced the form of the magnitudes μεθέξει τοῦ ἑνός'. S. (18–21) lays great stress on this passage,³ holding that it is probably a résumé of the authentic commentary of Alexander. If so, Syrianus must have misunderstood his source, as is proved by a capital piece of evidence which S. has overlooked: the commentary of the genuine Alexander on Metaphysics 1001 B 19–25.

In 1001 B 19–25 Aristotle asks how the product of the one itself and self-identical inequality can be, as some say, now number and now magnitude, since it is unclear how the magnitudes could result either (1) ἐξ ἑνός καὶ ταύτης or (2) ἐξ ἀριθμοῦ τινός καὶ ταύτης. Here the genuine Alexander says (Metaph. 228, 10–28) that Plato's doctrine was (1)⁴ not (2);⁵ and it cannot be assumed that he would have said the very opposite in his lost comment on 1085 A 13. If it was this lost comment, then, that Syrianus paraphrased in saying (Metaph. 154, 9–13) of (2) that τοιαῦτα ἐν τοῖς περὶ φιλοσοφίας ἱστορεῖ περὶ Πλάτωνος and of (1) that it was the doctrine of others, he must either have wrongly added the περὶ Πλάτωνος himself or must have mistaken as referring to (2) the remark that Alexander intended to refer to (1).⁶ In any case, the statement

¹ The contrast of οἱ δὲ πρῶτοι, who made ideal and mathematical number two different numbers, shows that προσγλιχόμενοι ταῖς ἰδέαις τὰ μαθηματικά here means 'combining' or 'identifying' the ideas and the mathematical (cf. [Alexander], Metaph. 816, 36–38; Metaphysics 1069 A 35) and not merely 'placing them on the same level' or 'taking an equal interest in both' as S. (31 and 31, n. 4) would have it. Aristotle probably means that they 'stick together' two things that cannot be combined in a real unity (cf. Ross, *Parva Naturalia*, Oxford, 1955, 188 on γλίσχονται [437 A 21–22]).

² S. (31 and 31, n. 2), who in saying that Xenocrates took Plato's ideal magnitudes as given and sought to apply to them the theorems of mathematics inverts what Aristotle says of Xenocrates in 1080 B 28–30; 1083 B 1–8; 1086 A 5–11.

³ And on Pseudo-Alexander, Metaph. 777, 16–21, which he admits, however, is simply a copy of that of Syrianus. Ross in his *Fragmenta Selecta*, 1955, 79 prints this passage of Pseudo-Alexander without mentioning that of Syrianus, which may imply that he took the latter to be a copy of the former (cf. Kroll, *Syriani in Metaph. Commentaria*, 1902, VI).

⁴ ... τῇ Πλάτωνος δόξει ... οὐ γὰρ οἱ ἀριθμοὶ μόνοι ἀλλὰ καὶ τὰ μεγέθη ἐξ ἑκείνων (scil. the one and inequality = the indefinite dyad = the 'great and small') κατ' αὐτόν. ... πῶς ἐξ ἑνός καὶ ταύτης συντεθειμένων οἷόν τε μέγεθος τι γενέσθαι; ἀριθμοῦ γὰρ ταῦτα γεννητικά (228, 10–20).

⁵ The author of (2) is not named: ἢ εἰ πρῶτόν τις λέγοι τὸν ἀριθμὸν ... εἰθ' οὕτως ἐκ τοῦ ἀριθμοῦ τὰ μεγέθη ... (228, 20–24).

⁶ Cf. Syrianus, Metaph. 63,38–64,2 with Alexander, Metaph. 262, 4–8 and Syrianus, Metaph. 75, 29–31 with Metaphysics 1009 B 25–28. The genuine Alexander, unless he was as ignorant of early Platonism as «le 'grand' Syrianus» himself, could not have said, as Syrianus declares (Metaph. 122, 18) that 1080 B 14–16 refers to Xenocrates.

of Syrianus cannot carry any weight against the evidence of the genuine Alexander, for of the commentators whose works are extant Alexander alone could have read the *De Philosophia*, to which he elsewhere refers for still another theory of the principles of magnitudes (*Metaph.* 117, 23–118, 1). A comparison of that passage with *Metaph.* 228, 10–28 is alone enough to prove that contrary to S.'s contention (a) the theory of *Metaphysics* 992 A 10–19 (= 1085 A 9–12 = 1087 B 16–17) was not Plato's and (b) that Platonistic theories other than his were discussed in the *De Philosophia*,¹ while *Metaph.* 228, 10–20 by itself is sufficient to prove that whether in the *De Philosophia* or elsewhere what Alexander found Aristotle ascribing to Plato was not the doctrine of *Metaphysics* 1090 B 21–24 (= Syrianus, *Metaph.* 154, 10–12 = Pseudo-Alexander, *Metaph.* 777, 17–18) either but one different from this and incompatible with it² and therefore not the doctrine of *De Anima* 404 B 19–24.

In taking 404 B 19–24 to be meant for Plato's doctrine S. has to 'understand' with *διωρίσθη* (B 19) the phrase *ὑπὸ τοῦ Πλάτωνος*.

Its omission he then tries to explain (24–25, 47) by saying that in B 16 Aristotle wrote *ὁ Πλάτων ἐν τῷ Τιμαίῳ* instead of *ὁ Τίμαιος* in order to refer at once to Plato speaking through the mouth of Timaeus and to Plato speaking himself as the principal character in the second book of the *De Philosophia* and that this formula enabled him to continue referring to Plato in B 19 ff without repeating his name. No such subtle double reference could have been intended by the innocent *ὁ Πλάτων ἐν τῷ Τιμαίῳ*, as is proved, if proof be required, by *De Generatione* 325 B 24–25 and 332 A 29–30; but, what is more, S. has failed to observe that Aristotle frequently uses *διωρίσθη* or

¹ Contrast *Metaph.* 228, 18–19 and 24–27 on Plato's theory, *ἡ ἀνισότης . . . ἡ αὐτὴ φύσις οὕσα καὶ ἀριθμῶν καὶ μεγεθῶν ἀρχὴ κατ' αὐτόν* (cf. 1090 B 37 f in *Aristotelis Metaphysica* rec. W. Jaeger, Oxonii, 1957 and *Aristotle on Plato* 1, 483) to what is said about the theory of 992 A 10–19 in *Metaph.* 118, 10–16 and 21–23, *κατὰ δὲ ἐκείνους ἄλλα λέγοντας καὶ διαφέροντα γένη . . . ἄλλαι τοῦ ἀριθμοῦ ἀρχαὶ κατ' αὐτοὺς ἦσαν . . . ἄλλο γένος . . . τῶν γενῶν τούτων ἐκάστου . . .* Alexander says that this latter theory was in the *De Philosophia* but not that it was ascribed to Plato; and, of course, the subject of his *λέγει* (117, 25) is Aristotle here in the *Metaphysics* (so also *λέγει*, *εἶπεν*, *λέγει* [118, 5–8]), not, as S. imagines (15), «le personnage du dialogue» (cf. Alexander's *πάντα φασι τὰ ὄντα* [42, 14–15] for Aristotle's *φασι τὴν οὐσίαν* [986 B 8]). The fact that Alexander, though referring to the *De Bono* for other matters (56, 35; 59, 33 f; 85, 17–18; 250, 20; 262, 19, 23), refers to the *De Philosophia* for the doctrine of 992 A 10–19 indicates that he did not find this in the *De Bono*. S. says (17) that it was taught by Plato in his lecture on the Good and makes the same assertion (29) about 1090 B 21–24. In both cases his evidence is simply a reference to P. Wilpert, *Zwei arist. Frühschriften über die Ideenlehre*, where it is contended that Sextus, *Adv. Math.* 10, 248–284 reproduces the thought of the *De Bono*. That thesis, though widely accepted, is, I believe, demonstrably untenable; but in any case (1) there is nothing in this passage of Sextus corresponding to the doctrine of 992 A 10–19, and (2) in the derivations of magnitudes given by Sextus (10, 259–260 and 278–282) the point is treated as an ontological principle (528, 27–28; 532, 4–533, 1 [Bekker]), as Wilpert himself emphasized (op. cit. 218 f) without noticing Aristotle's assertion that this was denied by Plato (*Metaphysics* 992 A 20–22).

² When Aristotle says *ἄλλοι ἄλλως τιθέασιν* (1085 A 13) or *οἱ μὲν τὸ μέγα καὶ μικρὸν λέγοντες . . . στοιχεῖα τῶν ἀριθμῶν . . . οἱ δὲ τὸ πολὺ καὶ ὀλίγον, ὅτι τὸ μέγα καὶ τὸ μικρὸν μεγέθους οἰκειότερα . . .* (1087 B 13–17) or *εἰσὶ δὲ τινες οἱ δυνάμει ἀόριστον ποιοῦσι . . . στοιχεῖον, τὸ δ' ἀνίστον δυσχεραίνουσιν . . .* (1088 B 28–30), it is irresponsible to pretend as S. does (17, n. 1; 20) that he is referring not to definitely different theories of different people but to different points of departure in Plato's lecture or to a doctrine «still imprecise and not definitively formulated».

³ S. does not mention the fact that *ὁ* is a doubtful reading and that the position of the other words in the sentence is uncertain.

διώριστα without agent expressed, as he uses ἐν τοῖς π. φ. λ. διωρίσθη here, to refer back to some exposition of his own and that in such cases the agent to be 'understood' is simply ἡμῖν.¹

Moreover, we have in Physics 209 B 11-16 an example of the way in which Aristotle compared what Plato said in the Timaeus with what he said in the ἀγραφα δόγματα: Πλάτων . . . φησιν . . . ἐν τῷ Τιμαίῳ . . . ἄλλον δὲ τρόπον ἔχει τε λέγων . . . καὶ ἐν τοῖς λεγομένοις ἀγράφοις δόγμασιν, ὁμῶς . . . ἀπεφάνητο. If the doctrine of 404 B 19-24 had been expounded by Plato in his lecture, why did Aristotle not in like manner here refer for it to Plato himself or to his own supposedly factual report of that lecture in the De Bono instead of citing as he does the De Philosophia where, even if S.'s assumptions were true, the account, as everyone would know, would be not Plato's own but a free if not tendentious elaboration put by Aristotle into the mouth of a fictitious Plato?² This question S. does not even pose. Had he done so, had he given due weight to the evidence that Themistius found the doctrine of 404 B 19-21 in the Περὶ φύσεως of Xenocrates and probably did not find that of B 22-24 in this same work, and had he not disregarded the ἐπεὶ δὲ καὶ . . . καὶ γνωριστικὸν οὕτως, . . . of B 27-28, then instead of misinterpreting 404 B 18-24 as merely a more precise development of τὰ δὲ πράγματα . . . εἶναι (B 18) he would have seen that 404 B 18-27 is connected not with what precedes it³ but with B 27-30, that in B 19-24 two different aspects of Xenocrates' doctrine are brought together (as the ἔτι δὲ καὶ ἄλλως itself indicates), that B 24-27 is the explanation justifying the inference being drawn from this combination, and that Aristotle here refers to his own exposition in the De Philosophia because he had there brought together these two aspects of the doctrine which their author had not himself combined.⁴

¹ A few among many examples are Topics 153 A 24-25; De Caelo 274 A 22-23; 284 B 13-14; De Generatione 329 A 27; 337 A 25; De Part. Animal. 640 A 8; 649 A 33; De Motu Animal. 700 B 8-9; Rhetoric 1372 A 1-2; cf. for ἡμῖν expressed Meteorology 339 A 11 and Metaphysics 986 A 12-13.

² In fact no ancient evidence supports the currently fashionable assumption that Plato appeared as a character in the De Philosophia, and certainly nothing justifies S.'s assertions (22. 24-25) that he was the main character in Book 2 or (53) «le personnage principal du dialogue».

³ S. has been misled by the ὁμοίως δὲ καὶ of B 18-19, which implies no more connection between the doctrines that it joins than does τὸν αὐτὸν δὲ τρόπον in B 16 between that of the Timaeus which follows and that of Empedocles which precedes it. S. admits (25, n. 2) that the formula has a «sens très nuancé» each time it is used. That does not prevent him from misinterpreting it (3) in 404 A 25 so as to assert that the preceding doctrine (A 20-25) of the soul as τὸ αὐτὸ κινεῖν is ascribed to Anaxagoras also, whereas in fact Aristotle distinguishes Anaxagoras' doctrine from this Platonic notion and identifies it rather with his own of the unmoved mover (cf. 405 A 13-19 and B 19-23 with Physics 256 B 24-27, and 265 B 22-23 contrasted to B 32-34). The formula is used in 404 A 25 as in 406 B 19-20, in Physics 265 B 23, and elsewhere to connect different doctrines of different people simply because both, however different, illustrate the point that Aristotle wants to make; and this and no more is its significance in 404 B 18-19.

⁴ Cf. Aristotle on Plato 1, 574-575 and *ibid.* 570-571 for the ascription of the doctrine of 404 B 22-24 to Pythagoras or the Pythagoreans in Aëtius 1, 3, 8 (Dox. Graeci 282, 12 - 283, 10) and Theo Smyrnaeus 98, 1-7 (Hiller).

Furthermore, had he given any attention to Aristotle's own criticism of the doctrines here reported, he must have seen that 404 B 18–24 could not have been intended to be taken as an interpretation of the *Timaeus* and least of all as Plato's «authentic interpretation» of it. The point of 404 B 18–27 is that in the doctrine there presented soul and the principles of the entities apprehended are identified as number. Now, not only does Aristotle criticize the identification of soul with number as a doctrine peculiar to Xenocrates (408 B 32 – 409 A 10; 409 B 4–18; cf. also *Topics* 140 B 2–6); he attacks the *Timaeus* for making soul or *voûç* a magnitude instead of ascribing to it a unity like that of number (407 A 2–10) and further for representing cognitive process as a rotation instead of as a linear procedure such as he maintains it is (407 A 19–31), though the latter was the very reason given in 404 B 22–23 for identifying knowledge with the dyad.

This alone would be enough to show that Aristotle could not have meant 404 B 18–24 to be understood as Plato's exegesis of the *Timaeus*; and the rest of the relevant evidence, when fully and correctly read and not neglected, mutilated, and mistranslated, confirms this conclusion against S.'s repeated asseverations and unsubstantiated 'reconstructions'.

FRITZ WEHRLI. *Die Schule des Aristoteles. Texte und Kommentar.* Basel, Benno Schwabe & Co. Heft I: *Dikaiarchos*, 1944. Pp. 80. Heft II: *Aristoxenos*, 1945. Pp. 88.

These are the first two fascicles of a series in which Professor Wehrli intends to collect and to publish with accompanying commentary the remains of the Peripatetic writings of the 4th, 3rd, and 2nd centuries B. C., the works of Aristotle himself and of Theophrastus not included. By "the remains of the Peripatetic writings" is apparently meant the fragmentary remains in the strictest sense, since in the fascicle devoted to Aristoxenus Wehrli does not print the extensive *Harmonica* or the *Rhythmic Fragments* but for these refers the reader to the publications of Marquard, Westphal, and Ruelle.¹ Furthermore Wehrli avowedly restricts his collection to passages that are guaranteed by explicit citation,² a properly conservative procedure to employ but one which might have been supplemented to the great advantage of further research by the addition of a list of those passages which, though not thus guaranteed, have nevertheless been ascribed by different scholars to the Peripatetic in question. It is still possible to make up this deficiency by compiling such lists for all the Peripatetics in an appendix to the series; and it is to be hoped that Wehrli will consider some such means of increasing the utility of his collection, just as it is to be hoped that he will repair the lack of the *index locorum* that might reasonably be expected in each fascicle, since each is represented as an independent publication,

¹ It is remarkable that Wehrli does not mention in this connection the later edition, translation, and commentary of the *Harmonics* by H. S. Macran (Oxford, 1902) or the book by C. F. A. Williams, *The Aristoxenian Theory of Musical Rhythm* (Cambridge, 1911).

² Some exceptions to this rule are allowed. For example, he prints as frag. 30 of Aristoxenus the story told of Archytas in Iamblichus, *De Vita Pythag.*, 197, in this agreeing with Wytttenbach as had Müller, *F. H. G.*, II, p. 276.

by a general *index locorum* and possibly an index of special terms or topics for the whole series.

The two fascicles already published contain fewer than a dozen fragments, more than half of which are mutilated sentences from the papyri of Herculaneum,³ that had not already been collected by Müller in volume II of his *Fragmenta Historicorum Graecorum*. Those fragments which Müller printed or to which he referred, however, Wehrli in many cases prints at greater length; and this is an improvement, even if at times Wehrli may be mistaken in claiming for Dicaearchus or Aristoxenus as much of the context of these passages as he does.⁴ His arrangement of the fragments is quite different from Müller's. Many of the fragments of Dicaearchus and Aristoxenus cannot with any degree of certainty be assigned to a definite writing; and Wehrli, frankly recognizing this, often employs a general rubric under which are grouped fragments that may have come from several different works of a similar nature. So in the case of Dicaearchus, for example, he does not presume to assign each biographical fragment to a separate "life" but collects them without distinction under the heading, "Ueber Lebensformen, Biographien," although he inclines to the belief that there were independent monographs on Pythagoras, the Seven Sages, Plato, and Socrates. He argues convincingly (I, pp. 75 f.) against the existence of an independent work, *καταμετρήσεις τῶν ἐν Πελοποννήσῳ ὁρῶν* (cf. Suidas, s. v. Δικαίαρχος); and in the case of Aristoxenus, although he collects under the rubric, "Seelenlehre," the references to Aristoxenus' remarks on the soul, he properly points out (II, pp. 84 f.) that there is no necessity for assuming that there was a separate book on this subject, since what evidence there is indicates rather that the comparison of soul with tone as the function of the lyre occurred in other, e. g. pedagogical, contexts.⁵

³ In Heft I: *Dikaearchos*, p. 50 Wehrli properly rejects Mekler's arbitrary "restoration" in *Acad. Philos. Index Heroul.*, p. 22, col. V: [καθὰ Δικαίαρχος ἐν τῇ βίῳ φιλοσόφου] α̅ and with it the "evidence" for a "Life of Aristotle" by Dicaearchus.

⁴ For example, of Diogenes Laertius, III, 4 Wehrli prints καὶ ἐκπαυμένη μὲν γράμματα παρὰ Διονυσίῳ οὐ καὶ μνημονεύει ἐν τοῖς Ἀντερασταῖς as part of the fragment of Dicaearchus (frag. 40 = 24, Müller) and states (I, p. 54) that "Die Zusammengehörigkeit der bei Diogenes Laert. fr. 40 durch andere Zitate getrennten Stellen wird durch den Parallelbericht bei Apuleius *De Platone* I 2 bewiesen." If true, this would mean that Dicaearchus knew the *Anterastae* and took it to be authentic. The clause, οὐ καὶ μνημονεύει ἐν τοῖς Ἀντερασταῖς, however, is not represented in Apuleius' version, the intermediate remarks concerning the origin of the name, Plato, which Diogenes Laertius ascribes to Alexander being absent also, and so probably does not come from Dicaearchus.

⁵ Wehrli takes *Schol. Platon. Phaedo* 108 D (... ἐν τῇ περὶ τῆς μουσικῆς ἀκρόασει ...) as evidence of a separate work of Aristoxenus entitled *Μουσικὴ Ἀκρόασις*, "eine für den Schulgebrauch bestimmte Schrift, die von *Περὶ μουσικῆς* zu unterscheiden ist" (II, p. 77 on frag. 90). Müller (frag. 77) also assumed that the reference is to a separate work, but he entitled it *περὶ τῆς μουσικῆς ἀκρόασις*, which is strictly what the scholium says and which would have to mean not "Musical Lecture" but "On Listening to Music." The scholiast's phrase is highly suspicious, however; cf. Diels, *Doxographi Graeci*, p. 340 on Stobaeus, *Eccl.*, I, 23, 1, ἐν τοῖς περὶ τῆς φυσικῆς ἀκρόασις: "περὶ αὐτῆς φυσικῆς ἀκρόασις otiosum

Such matters as the arrangement and ascription of the fragments are defended in the commentary which accounts for more than half of each fascicle and in which are discussed the implications of the fragments, the probable nature and scope of the works from which they were drawn or to which they refer, and the light which they cast upon the attitude and activity of Dicaearchus and Aristoxenus. This commentary is intelligently and soberly written and displays a healthy freedom from that tendency to which so many modern interpreters of ancient fragments are disposed, the tendency to erect for their authors extensive systems upon a few broken foundations filled out by elaborate but precarious hypotheses. The two fascicles under review are an auspicious beginning of a collection which will be of great service to scholarship and which all scholars of Greek and Roman thought will hope to see completed without undue delay.*

inferioris aetatis scriptori condonabilis." It should be observed that in the text of the most recent edition of the scholium (*Scholia Platonica* . . . edidit W. C. Greene, American Philological Association, Haverford, 1938) there is no trace of ἐν τῷ before περὶ. Certainly this is tenuous evidence for a "Lehrschrift" distinct from Περὶ μουσικῆς.

*I have observed scarcely any misprints that need cause a reader trouble. In fascicle I, p. 46, line 18 the reference 477 B 27 should be 407 B 27; and in fascicle II, p. 75, line 5 from the bottom of the page "Apelt" is presumably a *lapsus calami* for "Abert."

FRITZ WEHRLI. *Die Schule des Aristoteles. Texte und Kommentar.*
Heft III: Klearchos. Basel, Benno Schwabe & Co., 1948. Pp.
85.

The first two fascicles of this work, containing the fragments of Dicaearchus and Aristoxenus, were reviewed in volume LXIX (October, 1948), pp. 455-457, of this Journal. The description there given of those fascicles applies as well to this, the third, which contains the fragments of Clearchus of Soli in thirty-two pages, a brief bibliography, and forty pages of commentary. Like the earlier parts this one has no index of any kind, but the advertisement on the cover now gives the reassuring news that the last fascicle of the work will contain exhaustive indices. Until those indices have appeared, scholarly use of the edition will be seriously limited; such use will be facilitated if among the indices the editor will include a table by means of which one can quickly find in his collection fragments to which reference has hitherto been made by the numbering of earlier editions such as Müller's for Dicaearchus, Aristoxenus, and Clearchus.

To Müller's collection of the fragments of Clearchus Wehrli has added about half a dozen passages, most of which had been indicated by Kroll in his article in *R.-E.*, XI, 580-583. He has rearranged and renumbered the fragments and frequently prints a more extensive text than Müller did; these changes are usually improvements upon the older collection. Wehrli also gives an *apparatus criticus* for his text as he did in the two preceding fascicles, but unfortunately this *apparatus* is neither complete nor accurate, as a few samples will demonstrate.

In fragment 2a (Diogenes Laertius, III, 2), for example, Wehrli prints 'Αναξιλίδης, ascribing it to "editores Basilienses" although it was the reading of Stephanus; he does not in his *apparatus* mention the form 'Αναξилаΐδης, the form printed by Cobet and by Hicks and adopted by Schwartz in *R.-E.*, I, 2083, although this is the form of the name that he employs in his note on p. 46. In fragment 4 (Plutarch, *De An. Proc.* 1022 E — p. 10, 12 [Wehrli]) he prints συμπληρούντων and in his *apparatus* calls συμπληροῦν "varia lectio"; but συμπληροῦν is in fact the reading of both E and B, and Bernardakis properly prints it in his text without attested variant. In fragment 7 (Proclus, *In Platonis Rem Publicam*, II, p. 123, 3-4 [Kroll] — p. 11, 23 [Wehrli]) ὁμοιον ἀψύχῳ is printed without comment, although Kroll has on this phrase the note: "ὁμοίων ἀψύχων Morus, corr. Bernays qui ὁμοίως." In fragment 11 (*Schol. Platon. Leges* 739 A) Wehrli prints without comment περὶ παροιμίας φησὶ κτλ., which is also given without any critical note in Greene's *Scholia Platonica*, p. 321, although both Müller (fragment 44a) and Hermann (*Platonis Dialogi*, VI, p. 379) print παρὰ παροιμίας φησὶ κτλ.; παρὰ appears to me to be more reasonable ("The source of his remark is the proverb," etc.), but in any case a critical note is called for at such a point. In fragment 24 (Athenaeus, XV, 670 e — p. 17,

24-25 [Wehrli]) τοῦ ἐμποδῶν is printed without mention of Edmonds' τῷ ἐμποδῶν which Gulick adopts and apparently without cognizance of Gulick's note on the passage. The text and apparatus of fragment 97 (Plutarch, *De Facie* 920 F [not E]) are misleading. No indication is given that in the MSS there is a lacuna before καὶ πρὸς Κλέαρχον at the beginning. ὁ ἀνὴρ, Ἀριστοτέλους is ascribed to Müller, who had simply copied it from Dübner, Ἀριστοτέλους having been the emendation of Turnebus. The impossible ἴνυ is printed without even a mention of the emendation, ὄψις, of Turnebus and Kepler. ἰ<ρυν> is ascribed to "editores" instead of Turnebus. Xylander's <σύντη>ξιν is adopted without mention of other proposals, although here Raingeard's πῆξιν is certainly correct.

Wehrli's text at several points raises more substantial questions, however, questions which involve his interpretation rather than the adequacy of his editorial technique. In fragment 14 (Hesychius, s. v. Μανέρως — fragment 29 [Müller]) he adopts the alteration of παρὰ Μάγων to παρὰ Μουσῶν and supposes that with these words Clearchus intended to ascribe the invention of music to the Egyptian; but the combination of the facts that Clearchus made the Hindu gymnosophists "descendants of the Magi" (fragment 13 — Diogenes Laertius, I, 9) and the Jews "descendants of the philosophers among the Hindus" (fragment 6 — Josephus, *Adv. Apionem*, I, 22 ff.) and that Aristotle, as Wehrli himself observes, is said to have declared in the περὶ φιλοσοφίας that the Magi were older than the Egyptians (Diogenes Laertius, I, 8) seems to me to speak in favor of retaining the MS reading, παρὰ Μάγων, in Hesychius and to see here the possibility that Clearchus may have traced all "philosophy" back to a single ultimate source in Persia.

Wehrli calls ΕΡΩΤΙΚΟΣ the work which Müller entitled ΕΡΩΤΙΚΑ and argues (p. 57, note on fragment 35) that it must have been in the form of a dialogue. According to Athenaeus, II, 57 e ἐκάλουν δὲ καὶ τὰ νῦν τῶν οἰκιῶν παρ' ἡμῖν καλούμενα ὑπερῶα ὡά, φησὶ Κλέαρχος ἐν ἐρωτικοῖς. Since according to Scholion T on *Iliad*, XVI, 184 it was the Spartans who used ὡά for the μετέωρα οἰκήματα, Wehrli, assuming that this notice derives from Clearchus, concludes that παρ' ἡμῖν in fragment 35 means Sparta, that Clearchus could not have said this in his own person as a Cypriote, and that therefore the words of the fragment are proof that the work was a dialogue. The speaker does not say, however, that the upper chambers are or were ever called ὡά παρ' ἡμῖν; to the contrary, he says: "They used to call ὡά the parts of the houses that are now in our country called ὑπερῶα," which rather sounds as if the speaker, whether Clearchus in his own person or not, were distinguishing his countrymen from the subject of ἐκάλουν. So this provides no evidence for the form of the work; and as for the title, all the references to it, ἐν ἐρωτικοῖς as here, ἐν τοῖς ἐρωτικοῖς, ἐν τῷ πρώτῳ τῶν ἐρωτικῶν, ἐν δευτέρῳ ἐρωτικῶν imply the ΕΡΩΤΙΚΑ assumed by Müller or ΕΡΩΤΙΚΟΙ rather than Wehrli's ΕΡΩΤΙΚΟΣ.

The punctuation in fragment 41 and the note on p. 60 appear to involve a misconstruction of Sappho's lines (Athenaeus, XV, 687 a-b; Sappho, frag. 65 A, 25-6 [Diehl] — frag. 118 [Edmonds]). ἔρος τῷ ἐλπίω is the subject of λέλογχε of which τὸ λαμπρὸν καὶ τὸ καλόν is object; and so Clearchus construed it, interpreting ἡ τοῦ ζῆν

ἐπιθυμία τὸ λαμπρὸν καὶ τὸ καλὸν εἶχεν αὐτῇ. Wehrli should not then have set off ἔρος τῷελίω by commas, nor is there justification for his note: "Die Dinge zu welchen Sappho sich bekennt, ἀβροσύνη, Liebe zur Sonne oder Lebensfreude und καλόν werden alle gleichgesetzt, woraus K. folgert, für die Dichterin berge Lust als solche einen ethischen Wert."

In fragment 76 b (Suidas, s. v. νεοττός) Wehrli omits the sentences introduced by the words Κλέαρχος ἐν τῇ περὶ οἶνων συγγράμματι φησιν, which Müller prints as fragment 74 a, and assigns to Clearchus the subsequent story which is introduced by μαρτυρεῖ καὶ Χρύσιππος, assuming that "Chrysipp ursprünglich als zweiter Gewährsmann für die Erzählung hinter K. genannt, in dem durch Kürzung verwirrten Text des Suidas allein stehen geblieben ist" and that Clearchus combined the fragment of Menander which appears at the beginning of Suidas' article with the story which is ascribed to Chrysippus not only by Suidas but also by Cicero. I think Wehrli is probably right in suspecting that περὶ οἶνων in the text of Suidas is a mistake for περὶ παροιμιῶν; for the rest of his treatment of this fragment there is no foundation whatever. The sentences which he omits are in Clearchus' manner, for they would explain, as the story ascribed to Chrysippus makes no attempt to do, why people had called the yolk νεοττός though mistakenly, as he points out according to good Peripatetic doctrine (cf. Aristotle, *De Gen. Animal.* 751 B 4-7, 752 B 23-28, 753 B 10-12). The story ascribed to Chrysippus, on the other hand, is, *pace* Wehrli, a testimonial to divination and not an αἴτιον of the proverbial expression, for the point of the story assumes the currency of the expression in order that the finder of the treasure may understand the rebuke of the diviner.

A problem of like nature but with more serious implications is involved in the treatment of fragment 53 (Athenaeus, XII, 530 c — fragment 13 [Müller]). Wehrli prints as part of the fragment the sentence, διὸ καὶ Ἀριστοτέλης Ξενοκράτην τὸν Χαλκηδόνιον σκώπτων . . . ἔλεγεν "χεῖρες μὲν ἀγναί, φρήν δ' ἔχει μίασμά τι," and in his note says: "die fñble Anwendung des Euripideszitates gehört zum Klatsch, der sich an den Gegensatz zwischen Aristoteles und der Akademie hängte; K. ist nicht Peripatetiker genug, um diesen Gegensatz sachlich zu begreifen." It is by no means certain, however, that this sentence belongs to Clearchus; Müller did not print it; and its form following the indirect discourse, Κλέαρχος . . . Σάγαρίν φησι . . . προενέγκασθαι, suggests that Athenaeus did not mean to ascribe it to Clearchus. In fact, the remark of Aristotle and the habit of Xenocrates to which it refers have nothing to do with the motive of Clearchus' story about Sagaris but only a superficial verbal connection with οὐ πώποτε δὲ τὴν χεῖρα κατωτέρω τοῦ ὀμφοῦ προενέγκασθαι. The following διὸ therefore probably belongs to Athenaeus himself, who not infrequently uses this means of lending a specious logical connection to the quotations and stories that he strings together. Another example of this habit is provided by the verses of Anaxilas, introduced by διὸ πρεπόντως ἂν τις εἴποι τῷ σοφῷ τούτῳ φιλοσόφῳ (Athenaeus, XII, 548 c), which are Athenaeus' own addition to the preceding quotation from Clearchus, though Wehrli prints them as part of his fragment 60 (pp. 26-27).

If Clearchus is responsible for the story of Aristotle's insulting

gibe at Xenocrates, however, his attitude towards the Academy must have been one of personal animosity; and this one would reasonably suppose to be the meaning of Wehrli's remark that Clearchus was "not Peripatetic enough to have an objective understanding of the opposition between Aristotle and the Academy," were it not that in his note on fragment 2, to which he here refers, he suggests that Clearchus openly opposed the animosity of Aristoxenus towards the Academy (p. 46). By lack of "objective understanding" does Wehrli then mean that Clearchus was too stupid to understand the implications of the slander that he supposes him to have repeated in fragment 53? However that may be, Wehrli sees Clearchus as more of a Platonist than an Aristotelian. Indeed, in his commentary on fragment 73 (Athenaeus, XIII, 555 c — fragment 49 [Müller]) he says: "Als Platoniker wird er die spartanischen Massnahmen als Erziehungsmittel bewundern" (p. 71), although there is nothing in the fragment to indicate either a tendency towards Platonism or approval of the Spartan custom there reported. The Platonism of the *περὶ ὕπνου* (fragments 5-10) is established hardly any more firmly. According to Wehrli (p. 47) "Das gemeinsame Thema Schlaf interessierte K. als der Zustand, der Sonderexistenz und damit Unsterblichkeit der Seele offenbart. K. bleibt damit seinem Platonismus treu, wofür er sich auf den aristotelischen Endem berufen kann"; but then he must suppose (cf. *apparatus* to fragment 9, p. 12) that Κλέαρχος is a mistake for Δικαίαρχος in Theoderet, *Græc. Affect. Curatio* V, 18: Κλέαρχος δὲ τῶν τεττάρων εἶναι στοιχείων τὴν ἁρμονίαν (*scil.* τὴν ψυχὴν), for, if this correctly states the opinion of Clearchus, fragments 7 and 8 (Proclus, *In Plat. Rem. Pub.* II, p. 122, 22 ff. and p. 113, 19 ff. [Kroll]) and fragment 38 (Athenaeus, IV, 157c) do not. It should be observed that in none of these passages does Proclus or Athenaeus say that Clearchus asserted his own belief in the separability or immortality of the soul. Proclus says that he represented Aristotle as having been so persuaded, and Athenaeus says that he ascribed the opinion expressed in fragment 38 to Euxitheus the Pythagorean; and lacking knowledge of the contexts from which these reports or excerpts come we can hardly guess what relation they bore to Clearchus' own conclusions or even be sure that he expressed any dogmatic conclusion at all. To Wehrli, however, the ascription of a Πλάτωνος Ἐγκώμιον to Clearchus (fragment 2 — fragment 43 [Müller]; Diogenes Laertius, III, 2) means that Clearchus wrote a "philosophical confession" and as a Peripatetic could appeal in support of his tendency towards Plato to the "platonizing early works of Aristotle, for whose later movement away from the Academy he obviously had no understanding" (p. 45). He does not mention the fact that there are strong grounds for suspecting the soundness of the text which ascribes this Πλάτωνος Ἐγκώμιον to Clearchus instead of to Speusippus who is mentioned in the same passage (cf. Lang, *De Speusippi Academici Scriptis*, pp. 32 ff.). What is stranger still, he does not in this connection take cognizance of Plutarch's assertion that Clearchus πολλὰ τοῦ Περιπάτου παρέτρεψεν (*De Facie* 920 E); and neither here nor in his notes on that passage (pp. 79-80 on fragment 97) does he consider the implications of that statement, the context of which (ὁμέτερος γὰρ ἀνὴρ . . . εἰ καὶ πολλὰ . . . παρέτρεψεν) suggests in fact that the Peripatetics sought to disown Clearchus. Wehrli might have argued that in so

doing they were disowning the "early Aristotle"; but this would raise the embarrassing question why they did not also directly disown the "early Aristotle" whose works, after all, were known to them. The fact is that the remains of Clearchus' writings are so meagre that we are unable to determine with any assurance what his philosophical position, if he adopted any definite position, really was.

One further point concerning the interpretation of fragment 97 must be mentioned, for it illustrates the danger of interpreting passages as isolated fragments. Wehrli in his note (p. 80) takes the theory of the rainbow mentioned in p. 36, lines 27-28 (Plutarch, V, p. 404, 22 ff. [Bernardakis]) as that of Clearchus (. . . "so wie nach K's Meinung das Licht des Regenbogens nach der Wolke"). The theory is Aristotle's and in that sense Peripatetic (cf. Aristotle, *Meteorology* 373 A 32-375 B 12 and Areius Didymus, fragment 14 — *Dox. Græc.*, p. 455, 14 ff.); but, as οἷσθ' ὑμεῖς addressed to Apollonides shows, Plutarch intended to ascribe it to mathematicians generally (cf. καὶ καθάπερ οἱ μαθηματικοὶ τὴν ἰσὺν . . . λέγουσι . . . in the similar passage, *De Iside* 358 F). For the notion that the sea is reflected in the moon cf. also Lucian, *Icaromenippus*, § 20. Wehrli is mistaken in supposing that Clearchus assumed the reflection of the sea in the moon to be "indirect"; both he and the "Pythagoreans" of Aëtius, II, 30, 1 had in mind simply the phenomenon of "seeing around a corner" by means of a mirror and not a reflection from sea to sun or central-fire(!) and thence to the moon.

GALEN AND POSIDONIUS' THEORY OF VISION.

[Arranged from notes left by the late Professor Roger M. Jones. An abstract of this paper is given in the concluding paragraph.]

Taking a passage from Plotinus (IV, 5, 4) as a starting-point and adducing several passages of Galen as a description of the theory of vision there mentioned, Karl Reinhardt in his book, *Kosmos und Sympathie* (pp. 188-192) claims to find in these passages Posidonius' theory of vision. This theory, he thinks Galen's description shows, was "vitalistic"; and he sums it up in the following words: "Es handelt sich bei ihm (Posidonius) nicht mehr, wie in der Vorsokratik, um die Ableitung der Wahrnehmung aus den Prinzipien, sondern um diejenige Wechselwirkung zwischen dem Makrokosmos und dem Mikrokosmos, als welche die Wahrnehmung sich darstellt. Der Wahrnehmungsapparat des Mikrokosmos bildet nun ein Ganzes, das, indem es sich aus den in den vier Elementen selbst enthaltenen sensitiven Kräften aufbaut, mit dem makrokosmischen Sensorium sich verbindet und 'verwächst.' Wie das Gesicht 'lichtartig,' das Gehör 'luftartig' ist, so ist auch umgekehrt das Licht selbst 'wahrnehmend,' die Luft selbst 'hört mit uns.' Erkenntnis ist Verschmelzung eines Einzelwesens mit dem Kosmos, letzten Endes Einigung und Sympathie des Kosmos mit sich selbst."¹

I shall first examine the passages on which Reinhardt's interpretation depends and then certain other remarks of Galen which he does not mention.

Plotinus (IV 5, 4) says *εἰ μὲν γὰρ τὸ φῶς τοῦτο τὸ συναφές ἐμψυχον γίνεται, καὶ ἡ ψυχὴ δι' αὐτοῦ καὶ ἐν αὐτῷ γιγνομένη, ὥσπερ καὶ ἐπὶ τοῦ ἔνδον, ἐν τῇ ἀντιλαμβάνεσθαι δέπουθεν, ὅπερ ἐστὶν ὁρᾶν, οὐδὲν ἂν δέοιτο τοῦ μεταξὺ φωτός. . . .* This, Reinhardt says, is the theory of Posidonius, the vitalism of which is evident in Galen, p. 641. The translation misrepresents the Greek, however. "Wenn das mit dem Gesicht verbundene Licht selbst beseelt ist" obscures the fact that the theory attributes to light not a *state* of spirituality but a *process* of becoming spiritualized, and that too merely in the sense that the soul passes *through* it and moves *in* it while

¹ I. Heinemann, *Posidonios' Metaphysische Schriften*, pp. 456-7, accepts this interpretation: "auch die Luft, sobald sie von der Sonne beschienen wird, selbst sehfähig wird." He calls Galen's presentation "wohl aus Posidonios schöpfend."

the light itself is not changed in any way (cf. the end of the sentence: πάσχοντες οὐδὲν τοῦ μεταξύ, ἀλλὰ γίνεται τῆς ὁψους φορὰ καὶ).

Reinhardt next quotes Galen, p. 641, where it is said that the surrounding air is to the eye as the nerve is to the brain (and the nerve is a part of the brain): πεφωτισμένος γὰρ ὑφ' ἡλίου τοιοῦτόν ἐστιν ἤδη τῆς ὁψους ὄργανον ὡς τὸ παραγινόμενον ἐξ ἐγκεφάλου πνεῦμα. But before the air is lighted up ὁμοιοπαθεῖ ὄργανον οὐ γίνεται. There follows a comparison of Stoics, Epicurus, and Aristotle, which Reinhardt omits. Then Galen proceeds τί δὲ χαλεπὸν ἐστὶ τὴν ἡλιακὴν αἰγὴν αἰσθητικὴν ὑποθέσθαι ὡς μάλιστα τὸ κατὰ τοὺς ὀφθαλμοὺς πνεῦμα τὸ παραγινόμενον ἐξ ἐγκεφάλου προδήλως ὁράται; for it is φωτεινὸς and so the soul is either αἰγούριος τε καὶ αἰθερώδης σῶμα or, if itself incorporeal, has this body as its first vehicle through which, as a medium, it communicates with other bodies.

The statement here that the solar ray is αἰσθητικὴ caused Reinhardt to consider Galen's theory "vitalistic" (cf. p. 102). On this basis he says that the origin of the passage is clear because it agrees with Cicero *de Natura Deorum* II 88 (ipseque aer nobiscum videt nobiscum audit) and Sextus adv. dogm. I 93 and 119 f.² He quotes Sextus I 92-3 where, after the statement of the Pythagorean doctrine of the criterion and the verses of Empedocles, γαίῃ μὲν γὰρ γαῖαν ὀπύαμεν, ὕδατι δ' ὕδωρ, κτλ., follows the sentence καὶ ὡς τὸ μὲν φῶς, φησὶν ὁ Ποσειδώνιος τὸν Πλάτωνος Τίμαιον ἐξηγούμενος, ὑπὸ τῆς φωτεινῆς ὁψους καταλαμβάνεται, ἡ δὲ φωνὴ ὑπὸ τῆς ἀεροειδούς ἀκοῆς, οὕτω καὶ ἡ τῶν ὅλων φύσις ὑπὸ συγγενούς ὁφθαλμοῦ καταλαμβάνεσθαι τοῦ λόγου.

There is, however, some ambiguity in the way Galen applies to the solar ray the adjective αἰσθητικὴ. First, the ray, being luminous, by its presence converts the air into a visual organ, such as is τὸ παραγινόμενον ἐξ ἐγκεφάλου πνεῦμα, but later the solar ray itself is called αἰσθητικὴ ὡς μάλιστα τὸ . . . πνεῦμα. . . . As for the two passages of Sextus, they can show at most only that Posidonius based his doctrine of relationship of macrocosm and

² Sextus adv. dogm. I 119 merely says that Plato in the *Timaeus* proves the soul to be incorporeal by the argument that as sight which perceives light is luminous, hearing which judges concussions of air is ἀεροειδής, etc., so the soul which perceives incorporeal forms must be incorporeal.

microcosm on the theory of sensation in the *Timaeus* and in Empedocles' poem. They have no direct connection with this passage of Galen.

But there is another passage of Galen which Reinhardt quotes as parallel to Sextus. Galen (de placit., p. 625) says, "If sight alone of the senses perceives the object by the medium of air, not *ὡς βακτηρίας τινός* (which is the orthodox Stoic theory) *ἀλλὰ ὡς ὁμοιοῦς τε καὶ συμφυοῦς αὐτῇ μορίου* and if sight alone has this privilege *μετὰ τοῦ καὶ διὰ ἀνακλάσεως ὁρᾶν*, naturally *ἐδείχθη πνεύματος ἀνωθεν ἐπιρρέοντος ἀγχοιδούς, ὃ προσκίπτον τῇ πέριξ ἀέρι καὶ οἶον ἐκπληττον αὐτὸν αὐτῇ συνεξομοίωσα. δρόνται οὖν ἐρούμεν ἀγχοιδέες μὲν εἶναι τὸ τῆς ὀφθαλμοῦ ὄργανον, ἀεροιδέες δὲ τὸ τῆς ἀκοῆς, ἀτμοιδέες δὲ τὸ τῆς ὀσμῆς, καὶ τὸ μὲν τῆς γεύσεως ὑγρόν, τὸ δὲ τῆς ἀφῆς γεῶδες.* Then follow the verses of Empedocles. Reinhardt takes the word *συμφυοῦς* to be clear evidence that Galen is giving the same doctrine listed by Aëtius 403 D: *Ποσειδάσιος γοῦν αὐτὴν (i. e. τὴν ὄρασιν) σύμφυσιν ὀνομάζει.* But he fails to note that this passage contains an important addition to the remarks of the Galen passage first quoted. Here sight requires *πνεύματος ἀνωθεν ἐπιρρέοντος ἀγχοιδούς* which impinges upon the surrounding air and assimilates it to itself.*

Only by determining what this *πνεῦμα* is shall we be able to decide whether the solar ray is of itself *αἰσθητική* and whether, in consequence, Galen's theory is "vitalistic." To do this we must examine certain passages not mentioned by Reinhardt.

Galen in his discussion of the nerves (p. 615) says that what is generally called *διάδοσις δυνάμεως* is really *ἀλλοιώσεως μετάδοσις οἷα καὶ κατὰ τὸν ἀέρα γίνεται πρὸς τῆς ἡλιακῆς αὐγῆς. οὕτω γοῦν εἰκός ἐστι καὶ τὸ παραγιγνόμενον εἰς ὀφθαλμοῦς πνεῦμα κατὰ μὲν τὴν πρώτην ἐμπιπὼσιν ἐνοῦσθαί τε τῇ περιέχοντι καὶ συναλλοιοῦν αὐτὸ πρὸς τὴν ιδιότητα τῆς αὐτοῦ φύσεως, οὐ μὲν ἐπὶ πλείστον γ' ἐκτείνεσθαι.* Here it is plain that the *πνεῦμα* which assimilates the outer air to its own nature is the *πνεῦμα* which travels from the brain to the eye and strikes the air outside, and the air becomes *συμφυές* and an organ of sight by reason of the activity of this *πνεῦμα* on it. Still here there is an analogy between the action on the air of this

* Reinhardt seems to equate this *πνεῦμα* with the *ἡλιακὴ αὐγή* of the previous passage, for he quotes Seneca Nat. Quaest. V 8: *ortus solis feriens gelidum aëra.*

πνεῦμα, on the one hand, and of the solar ray on the other: both exercise on it a "communication of alteration." But does the ray, which was called αἰσθητική on p. 641, render the air αἰσθητικόν as the πνεῦμα does? Like action of like agents on the same patient should have like results, and the analogy—if pressed as Reinhardt presses it—should mean that the air, whether assimilated to the solar ray or to the πνεῦμα, becomes αἰσθητική.

But Galen clarifies the matter on p. 616: λαίπεται οὖν εἶτε τὸν περίξ ἀέρα τοιοῦτον ὄργανον ἡμῖν γίνεσθαι καθ' ὃν ὁρῶμεν χρόνον, ὅποιον ἐν τῷ σώματι τὸ νεῦρον ὑπάρχει διὰ παντός (i. e. the air is a visual instrument, is αἰσθητικός, only during the time we are actually seeing; and in this respect it differs from the nerve in the body which is always a sensitive instrument). τοιοῦτον γάρ τι πάσχειν ἔοικεν ὁ περιέχων ἡμᾶς ἀπὸ τῆς τοῦ πνεύματος ἐμπτύσεως, ὅποιόν τι καὶ πρὸς τῆς ἡλιακῆς αἰγῆς. ἐκείνη τε γὰρ ψάσουσα τοῦ ἀνω αὐτοῦ δίδωσιν εἰς ὅλον τὴν δύναμιν ἢ τε διὰ τῶν ὀπτικῶν νεύρων ὅψις φεραμένη, τὴν μὲν οὐσίαν ἔχει πνευματικήν, ἐμπέπουσα δὲ τῷ περιέχοντι καὶ τῇ πρώτῃ προσβολῇ τὴν ἀλλοίωσιν ἐργαζομένη διαδίδωσι ἄχρι πλείστου τοῦ συνεχοῦς αὐτῷ, δηλονότι τοῦ περίξ σώματος ὑπάρχοντος, ὡς ἐν ἀκαρεῖ χρόνῳ τὴν ἀλλοίωσιν εἰς ὅλον αὐτὸ διατέμψαν. (It is the effluence of the optic nerves which has the οὐσία πνευματική, not the solar ray; and the following sentences show that power of the ray on the air is confined to making the air luminous.) So it is clear wherein the analogy between the solar ray and the πνεῦμα consists; each of them assimilates the air to its own nature—and instantaneously—, but the πνεῦμα makes it αἰσθητικόν the αἰγὴ simply φωτεινῇ.

Galen remarked (p. 641) that the problem of the medium resolves itself into the question whether the medium is simply a path along which something travels from object to observer or is itself an organ for perception of the visible as the nerve is for perception of tangibles. Reinhardt there noted: "Ebenso S. 628 Müller wie denn dies Ganze zusammengehört." Now p. 628 says that the eye contains a vast amount of πνεῦμα ψυχικόν. εἰκότως δ', ὡς εἶπεν, οὕτω κατεσκευάσθη, δεόμενος ὀργάνῳ χρῆσθαι τῷ περίξ ἀέρι. καὶ γίνεται δὲ τοιοῦτον ὄργανον αὐτῷ πρὸς τὴν τῶν οὐκ αἰσθητῶν διάγνωσιν, ὅλον ἐγκεφάλῳ τὸ νεῦρον, ὥσθ' ὃν ἔχει λόγον ἐγκέφαλος πρὸς τὸ νεῦρον, τοιοῦτον ὁφθαλμὸς ἔχει πρὸς τὸν ἀέρα.* And

* If the source of the πνεῦμα were the sun, the sentence must have read ὃν ἔχει λόγον ἐγκέφαλος πρὸς τὸ νεῦρον, τοιοῦτον ἩΑΙΟΣ ἔχει πρὸς

below: ἡ δὲ ὄψις ἐκτείνεται διὰ μέσου τοῦ ἀέρος ἐπὶ τὸ κεχρωσμένον. So from this passage itself Reinhardt should have seen that the πνεῦμα ἀνωθεν ἐπιρρέον αὐγοειδές of p. 625 is the πνεῦμα ψυχικόν which passes out at the eye. The air becomes a visual instrument like a nerve by reason of the transforming action of the πνεῦμα and of light; the ἀλλοίωσις in each case takes place instantaneously.

But then Galen's theory is only a clearer statement of Plato's in *Timaeus* 45 C-D: *ὅταν οὖν μαθημερινὸν ἢ φῶς περὶ τὸ ὄψον ρεῦμα, τότε ἐκπίπτει ὁμοιον πρὸς ὁμοιον, συμπαγὲς γινόμενον, ἐν σῶμα οἰκισθὲν ξυνέστη κατὰ τὴν τῶν ὀμμάτων εὐθυρίαν, ὅπῃπερ ἂν ἀντερείδῃ τὸ προσπίπτειν ἐνδοθεν πρὸς δὲ τῶν ἔξω ξυνέπασσεν. ὁμοιοπαθεῖ δὲ δι' ὁμοιότητα πᾶν γινόμενον, ὅτου τε ἂν αὐτό ποτε ἐφάπτηται καὶ δὲ ἂν ἄλλο ἐκείνου, τούτων τὰς κινήσεις διαδιδόν ἐς ὅπαν τὸ σῶμα μέχρι τῆς ψυχῆς αἰσθῆσαι παρέσχετο ταύτην, ἥ δὲ ὁρᾶν φασμέν, ἀπελθόντος δὲ εἰς νύκτα τοῦ ξυγγενοῦς πυρὸς ἀποτέμνεται. πρὸς γὰρ ἀνόμοιον ἐξιδὼν ἀλλοιοῦται τε αὐτὸ καὶ κατασβέννεται, συμφύεσθαι οὐκέτι τῇ πλησίον ἀέρι γινόμενον, ἅτε πῦρ οὐκ ἔχοντι.* (It is especially noteworthy that the word *συμφύεσθαι*, on which Reinhardt lays such stress in the passage of Galen, p. 625, occurs in this passage of Plato in exactly the same context.) A. E. Taylor's commentary on this passage reads exactly like Galen's explanation without the element of ἀλλοίωσις. "In the day-time the fine light within the eye can get out in a stream and then fuses with the light round about it. In this way there arises a 'pencil' of light extending from a body outside us continuously to our own eye, and this pencil is a temporary but real member of our own body and is sensitive throughout and so 'transmits' sensation from one extremity to the other. Light is thus a kind of extended touch or contact at a distance."⁵

τὸν ἀέρα. And, of course, the explanation of the abundance of πνεῦμα in the eye would have been abortive.

⁵ Note that this is exactly the objection Plotinus makes to the theory he is combating (IV 5, 4) and which Reinhardt claims is Posidonian. According to this theory, says Plotinus, ἀφ' ἧς ἔσται εἰκοστή το ὁρᾶν. (It may not be amiss here to point out that Taylor's statement, page 178 of his commentary, that Plato uses ἀφ' in the antique sense of "mist or water vapor," that it is because of this sense of the word that ἀφ' can be said to "quench" the ocular fire, is disproved by Galen's account. The fire is quenched by the air for the simple reason explicitly stated by Plato. Coming in contact with the "unlike," it is "altered and so put out.")

The elements in Galen's explanation which are not found in Plato's are: 1) the word *πνεῦμα* substituted for *πῦρ*, a substitution found also in Plutarch's version in *Quaest. Conviv.*, 626 C-D, 2) the explicit conception of *ἀλλοίωσις* due to the *πνεῦμα*, 3) a more exact knowledge of the brain and nerves, 4) the plain statement that the 'pencil' of light is an *ὄργανον*. The last element is not mentioned by Plato, though it is incorporated into Taylor's paraphrase and is a natural extension of Plato's own language; indeed, the phrases *ἐν σῶμα οἰκισθὲν ξυρόστη κατὰ τὴν τῶν ὀμμάτων εὐθυρίαν* and *τὰς κοήσεις διαδίδον εἰς ὅταν τὸ σῶμα μέχρι τῆς ψυχῆς* could not be otherwise interpreted.

We must also note that Galen (pp. 627-628) quotes this passage as representing his own theory and follows the quotation with the line of Empedocles which occurs on p. 625 and in Sextus *adv. dogm.* I 92. This similarity in the two last-mentioned places impressed Reinhardt; but here Galen goes on to show that Plato adopted the doctrine of Empedocles in a special sense, and he supports his interpretation by a quotation from the *Theaetetus*. So far as concerns Galen, Reinhardt's statement "Wieder ist Possidonios mit Empedokles . . . nicht zu verwechseln" is beside the point; Galen, rather, takes pains to show that Empedocles and Plato are not to be confused.

There is also some evidence for the origin of the concept of *ἀλλοίωσις* which is absent from Plato's theory but occurs in Galen's account. In a passage omitted by Reinhardt Galen says (p. 643) that Epicurus gives a better explanation than do the Stoics and better than Epicurus is Aristotle: *οὐκ αἰσῶλον σωματικόν, ἀλλὰ ποιότητα δι' ἀλλοιώσεως τοῦ περὶ ἀέρος ἀπὸ τῶν ὁρατῶν ἄγων ἄχρι τῆς ὀφθαλμοῦ. εὐλαβήθη γὰρ ὅπως αἰσθητικὸν ποιῆσαι τὸν περὶ ἀέρα, καίτοι τὴν γε σάρκα σαφῶς ὁρᾶν αἰσθητικὴν γεγονέναι ἐκ τῆς ὀφικνουμένης εἰς αὐτὴν ἀπὸ τῆς ἀρχῆς δυνάμει.* Clearly Galen is throughout the passage thinking of Aristotle *de Anima* II, chap. 11, and especially of 423 B 17: *ὅπως δ' ἔοικεν ἡ σὰρξ καὶ ἡ γλῶττα, ὥς ὁ ἀῆρ καὶ τὸ ὕδωρ πρὸς τὴν ὀφθαλμοῦ καὶ τὴν ἀκοὴν καὶ τὴν ὁσφρησιν ἔχουσιν, οὕτως ἔχουσιν πρὸς τὸ αἰσθητήριον ὥσπερ ἕκαστον.* Galen approves the Aristotelian conception which makes the affection the result of a qualitative alteration; he objects to the passive rôle assigned to the sense organ, however. That is, he says Aristotle caused this alteration to proceed from the object to the organ of sight because he did not want to make

the air αἰσθητικόν. Clearly Galen means that the air ought to play the same part in vision as the flesh does in touch.* Now Galen here says that Aristotle recognizes that flesh becomes αἰσθητική under the influence of the πνεῦμα from the brain. Aristotle himself, however, calls it merely τὸ μεταξὺ τοῦ ὁπτικῆς προσπεφυκός, "the cohering medium of touch"; i. e. an ὄργανον προσπεφυκός. Consequently, here is applied to flesh the same adjective (αἰσθητική) which, when applied to the solar ray, so impressed Reinhardt. Galen claims that the air is analogous to the flesh as represented by Aristotle, that it, too, is an ὄργανον προσπεφυκός. Not all air, but only that which is lighted up! But even lighted air is not in itself a sense organ as might be thought from the rather careless remark (p. 641) πεφωτισμένος γὰρ ὑφ' ἡλίου τοιοῦτόν ἐστιν ἤδη τῆς ὁφθαλμοῦ ὄργανον. It is such an instrument only καθ' ὃν ὁρῶμεν χρόνον (p. 616), only while the πνεῦμα is streaming out at the eye. The solar ray and the πνεῦμα are alike in two respects. They are both luminous; they both assimilate air instantaneously throughout its extent to their respective natures. The action of both is necessary to make the air an organ of sight; and so each may be called αἰσθητικόν in that each is "concerned with sensation," for strictly not πνεῦμα or solar ray or air alone is "sensitive" any more than is flesh.

If it be necessary to adduce further evidence that Reinhardt misconceives Galen when he says (p. 102) "Nach der Wahrnehmungstheorie Galens, oder des Poseidonios, ist der Strahl selbst wahrnehmend," it is enough to note that Galen (p. 635), approving of Plato's statement that the body of the universe is constructed of fire and earth in order that it may be felt and seen, adds that animals have the tactile organ earthy and the visual organ fiery, and so these organs are capable of alteration, but they would not be capable of sensation unless they had nerves. Obviously τὸ σῶμα τοῦ παντός is without nerves and so without sensation.

The notion that the alteration of the air by the sun is instantaneous is obviously derived from Aristotle's doctrine of the instantaneous affection of the διαφανές by the sun or a similar luminous body. The supposition of this source is confirmed by

* Cf. Galen (p. 641) ὁ δὲ ἀέρ ἐστιν ἡμῖν οἷς τὴν τῶν ὁρατῶν διόγνωση, οἷον παρ τὸ νεῦρον οἷς τὴν τῶν ἀπῶν.

Galen himself (p. 637): καὶ μὲν δὴ καὶ ὡς περ ὑπὸ τῆς ἡλιακῆς αὐγῆς αὐτῇ τῇ ψαῦσαι μόνον ὁ πᾶς ἀπὸ ἀβρότης ὁμοιοῦται, κατὰ τὸν αὐτὸν τρόπον ὑπὸ τοῦ χρώματος αὐτίκα μεταβάλλεται. ταυτὶ μὲν οὖν ὁρθότατα καὶ πρὸς Ἀριστοτέλους εἴρηται περὶ τῆς παραχρῆμα μεταβολῆς τῶν οὕτως ἀλλοιουμένων κτλ. The instantaneous alteration produced by the πνεῦμα of the eye is analogous and natural since the πνεῦμα, too, is luminous.

The theory mentioned by Plotinus, then, is that set forth by Galen. But Galen's theory is simply that of Plato influenced in one detail by Aristotle and made more explicit by Galen's better knowledge of the brain and nerves. There is one common Stoic element in it also, the use of the word πνεῦμα instead of Plato's πῦρ. Galen, himself, quotes Plato's description as representing his own theory, and he refers specifically to Aristotle for both parts of what we have presumed to be the Aristotelian element. There is nothing "vitalistic" about the doctrine; and, if this treatise of Galen's represents the theory of Posidonius, then the Posidonian optical theory was not "vitalistic." Since, however, it is uncertain that the notion of instantaneous action is possible for Posidonius, it remains doubtful that Galen's theory is due to him at all.

A.-J. FESTUGIÈRE: La révélation d'Hermès Trismégiste. II: Le dieu cosmique.
 Paris: Lecoffre, J. Gabalda et Cie. 1949. XVII, 610 S. (Études bibliques).

The first volume of this work entitled 'L'Astrologie et les Sciences Occultes' dealt with what Father Festugière calls 'popular Hermetism'. In

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this, the second volume, the learned student of religion and co-editor of the *Corpus Hermeticum* in the Budé Collection turns to 'philosophical Hermetism'. This phrase is not meant to imply that Hermetism was a philosophical system. On the contrary, F. insists that it had neither originality nor consistency and that it is interesting just because it testifies to two incompatible currents of religious thought in the Greco-Roman period, an optimistic and monistic conception of the world as a cosmos, the order of which is evidence of a divine demiurge, and a pessimistic and dualistic conception of the world as disorder, with which, as evil, God can have no connection and from which consequently one who seeks God must turn away. The common source of both conceptions according to Festugière was Plato, of the latter the Plato of the *Phaedo*, *Symposium*, and *Republic* and of the former the Plato of the *Timaeus* and the *Laws*; these two attitudes do not generally appear together in the same writings, and it is the peculiarity of Hermetism – and of Philo Judaeus, who in this respect illuminates Hermetism, – that in it the two are united even in one and the same treatise. The study of the latter of the two attitudes is reserved for subsequent volumes which will deal with the doctrines of the soul and gnosis and then in conclusion pronounce a general judgment upon Hellenistic religious philosophy after having confronted the two attitudes with each other. Here only the former, the 'optimistic' tendency which F. calls the religion of the cosmic God and understands not as a cult but rather as a religious attitude confined to the cultural élite, is traced in its development from Plato through Aristotle's *De Philosophia*, Stoicism, Cicero, the *De Mundo*, and Philo. The study ends with Philo because F. believes that after the time of the first Caesars almost all authors underwent the influence of this religious doctrine which became the common property of all thinking men in so far as they desired to reconcile reason and faith.

The Hermetic writings themselves are in this volume the subject only of the three chapters which constitute the Introduction.

First F. describes and briefly analyzes the documents, chiefly in order to bring out the composite nature of the *Corpus Hermeticum* which, as we have it, he believes is a Byzantine anthology made from various Hermetic collections and responsible by its very existence for the loss of those collections from which the choice was made¹.

In the second chapter² he argues that, though there never was a real Hermetic school, the form of the Hermetic logos reflects the actual practice of teachers in small schools or 'chapels' of theosophical apprentices, that the logos pretends to be at once oral lesson, lecture-notes, and published treatise and that this explains such anomalies in the composition as the exordia³ which some scholars have ascribed to a redactor, the *trac-*

¹ In the Introduction to the *Corpus Hermeticum*, Tome I (Paris 1945), XLVII f. F.'s co-editor Nock argues that the *Corpus* as we have it was compiled as an esoteric book by a devotee of Hermetism and not by a Byzantine scholar.

² Save for the final note this chapter appeared as a separate article in REG 55, 1942, 77–108.

³ It may well be that the exordia were written by the Hermetic author himself, but they offer no real evidence for the assumed lecture-notes either of teacher or of pupil even as a literary fiction in the *Corpus*. CH. XIV 1 to be sure introduces this tractate as

tatum hunc autem tuo scribam nomine in the prologue of the Asclepius, and the first sentences of Stobaei Excerpt. II B, and finally that the logoi exercised so little influence upon pagan writers of the second and third centuries just because they really were written for closed circles and intended to be kept secret, while their apocalyptic character would explain both Plotinus' silence concerning them and the attraction which they exercised upon the Christian Fathers. The ultimate model of the Hermetic logos as a revelation made by master to pupil F. professes to find in the revelation of Diotima to Socrates, and he contends that the Philebus offers a parallel to the Hermetic colloquy of teacher and pupil in the presence of another pupil who is silent as well as to the Hermetic convention of representing the logoi as parts of a continuous course¹.

The third chapter presents 'the data of the problem in the Hermetica', the contamination of the themes *novit qui colit* and *colit qui novit* and the further contamination of the doctrines of transcendence and immanence in the cosmic mysticism of the Hermetist, who has no system but draws on all philosophical traditions for a theme which, though full of intellectual contradictions, serves to nourish his piety.

F. begins the main body of the volume by analyzing Xenophon's Memorabilia 1, 4 and 4, 3, for here he finds the first explicit evidence of the argument from design and the doctrine of God as the provident organizer of the world². He draws an important distinction, however, between arguing to the existence of God from the excellence of macrocosm or microcosm and contemplating the cosmos with a feeling of reverence which leads to the adoration of the divinity that orders it; and so, after having indicated the parallels in the Hermetica to the various themes and arguments recorded by Xenophon, he points out the lack of any mysticism in these chapters of Xenophon for whom the argument from the order of the world leads only to the conventional cult of the civic gods and whose influence upon Hellenistic piety must therefore have been at best merely formal, the provision of vulgarized themes which pass from book to book without stimulating any effort of thought.

Plato's influence was on the contrary vivifying and complex and is therefore the more difficult to determine exactly, for here the task is not

a résumé of the instruction given to Tat by Hermes and now sent to Asclepius, who was absent from the meeting; but the impression given by the first sentence is that what Hermes said to Tat has not previously been written down at all, and the fiction of Asclepius' absence for the purpose of motivating the writing rather implies the assumption that ordinarily there would have been no record of the instruction. In CH. XIII 13 the text is corrupt and may, as Nock has suggested (Corpus Hermeticum II 215⁴¹), have just the opposite sense to that which Festugière gives it. As to ὑπόμνημα in CH. XVI 1, this surely refers not to notes of any kind but to that logos itself in its character of a letter written to the king.

¹ Here F.'s parallels are unconvincing. As he observes himself, the Philebus is a real debate as no Hermetic logos is. Moreover, Socrates not only appeals to Philebus for his opinion as well as to Protarchus for his (12 A) but does draw Philebus into the discussion again (27E-28B), and it is only Philebus' own stubbornness that excludes him from the argument. Nor can I see in the opening of the dialogue or in Protarchus' sentence at the end either any technical language of the school-room (Socrates' οἰκοῦν καὶ ἀπλετέ με; is scarcely an instructor's phrase) or any implication that the Philebus is meant to be the central dialogue of a course of three.

² He recognizes, of course, that Xenophon did not originate this order of thought and follows Theiler in stressing the probable importance of Diogenes of Apollonia in establishing it.

merely to recognize and count similarities, imitations, and quotations but also to identify the Platonic stimuli to doctrines and attitudes different from Plato's own and sometimes even contrary to them, to differentiate among many shades of interpretation and between true stimulus and the mere use of authority as supporting evidence, and, where stimulus has been determined, to measure the difference and chart the course between stimulus and result. It would be safest and, I believe, most instructive to undertake such a programme without committing oneself beforehand to any particular interpretation of Plato's meaning; but the very vitality of Plato's influence even now apparently renders this impossible. At any rate in F.'s long chapter on the *Timaeus* and the *Laws* his own interpretation of Plato is the predominant element and here as in later chapters too is interwoven with his investigation of Plato's influence upon the religion of the Cosmic God.

F. assumes that the cosmogony of the *Timaeus* is metaphorical and that the demiurge is a mythical double of the world-soul¹. Having stressed the finalist vein of the first part of the *Timaeus*, he comes to the capital question, how, since all has been arranged for the best, there still is disorder in the world, the question which, he says, led Plato to recognize causes that limit or resist the action of the final cause. Now F. asserts that Plato admitted no disorder in the physical world strictly so-called but restricted actually realized disorder to man, for whom genesis is not fiction but reality, and that in the *Timaeus* he explained this disorder by matter, an explanation which is not abandoned in the *Laws*, where, however, his object being moral, the disorder discussed is rather of a moral nature, so that it was unnecessary for him to consider there the physical notions of the *Timaeus*. He repudiates, of course, the interpretation of an 'evil world-soul' in the *Laws* and does so by arguing that the evil soul in *Laws* 896 E is proposed only hypothetically and subsequently rejected. Disorder, then, being the result of body, F. explains how Platonic *χώρα* could be interpreted in two diverse fashions, on the one hand as a merely passive potentiality, the indispensable condition of the organization of the cosmos by the final cause, and on the other as an active power and positive cause of disorder, the first interpretation serving the optimistic views of the cosmic religion while the second, which makes matter a positive antagonist of the good, governs the whole doctrine of evil matter in the Hellenistic gnosis.

F. believes that in the *Timaeus* the disordered motions which are the source of evil are really spontaneous motions of matter which are not further explained; and many of the unsatisfactory complications of his interpretation are the consequence of this erroneous conception, with which is connected the failure to appreciate Plato's theory

¹ The first assumption is correct and can, I think, be proved so (cf. my *Aristotle's Criticism of Plato and the Academy I* [hereafter referred to as *Aristotle on Plato I*], 421-431); but the demiurge is rather a personification of the logical abstraction, 'intelligent causation' in general, a symbol of the class of causes *δοσι μετὰ νοῦ καλῶν καὶ ἀγαθῶν δημιουργοί* (*Timaeus* 46 E 4).

of motion in its entirety¹. The secondary motions of the errant cause are explained in the *Timaeus* as necessary consequences of the action of soul upon body; they are not 'spontaneous' at all. Body is moved by soul, whether good or evil, with purposive motion; but the motion of any body so moved necessarily moves another body with motion which is neither intelligent nor purposive but merely random. So even intelligent soul in acting upon the phenomenal world, which has no source of motion in itself, must cause disorderly motion as a consequence incidental to its purpose. The distinction between primary and secondary motions in the *Laws* implies the same theory; and the myth of the *Politicus* must be interpreted in the light of it too, for the ἀταξία of which the world partakes is there precosmical and so not to be taken literally any more than is the precosmical chaos of the *Timaeus* and the retrograde motion is conceived as a reaction of the tension created by the motion which God imposes and to which it bears the same relation as Necessity does to Intelligence in the *Timaeus*. Besides the evil incidentally caused by secondary motions and that in which the whole phenomenal world as a derogation of the ideas may be said to be involved, the evil caused directly by ignorant souls was always recognized by Plato, who furthermore continued from first to last to assert the existence of ideas of certain 'evils'². Neither his theory of evil nor his theory of motion can be differentiated according to the stages of chronological development. The secondary motions of the errant cause, the idea of motion, and psychical self-motion as the principle of all phenomenal motion are all factors of a single and consistent theory; and of these factors the idea of motion is mentioned in *Parmenides* 129 D-E in a statement of the theory of ideas which is admittedly the same as that of the *Phaedo*, the concept of self-motion occurs as early as *Charmides* 168 E, while the final proof of immortality in the *Phaedo* implies the same relation of soul as cause of movement to the idea of motion as is to be found in the *Sophist*³. F. is most probably mistaken, therefore, in supposing, as many modern scholars have, that the conception of soul in the *Phaedrus* is new and that Plato's use of it in the *Timaeus* to give a reason for the phenomenon of motion and so to explain sensible existence by introducing an intermediate between the phenomenal and intelligible worlds was not yet possible for him in the *Phaedo*⁴; he is most certainly mistaken in saying that in the *Phaedo* soul is an idea, the idea of life⁵, and therefore could not be an intermediate term between the sensible and intelligible domains.

¹ For a full discussion of Plato's theory of motion with the citations of evidence cf. Aristotle on Plato I 431-454.

² Cf. Aristotle on Plato I, notes 175. 176. 389. *Timaeus* 48 A 5 ff. and 57 E-58 C show that the effects of the errant cause extend to the whole physical universe and are not meant to explain disorder in human affairs alone, and in *Laws* 897 A-B the evils produced by soul ἀνόητα συγγενομένη include merely physical change and disorder. F. is right in denying that there is in the *Laws* an evil world-soul but wrong in saying that evil soul is merely an hypothesis, for, while it is proved not to rule the heavens and the stars, its existence in the world is most emphatically asserted (cf. *Laws* 904 A-E and 906 A-C with 896 D).

³ Cf. Aristotle on Plato I 433-439. 442.

⁴ It should be observed that in the *Timaeus* Plato never openly mentions the self-motion of soul. For this he had a special reason (cf. Aristotle on Plato I 428-431); but his silence concerning it there should be a warning not to conclude that because he does not mention it explicitly in the *Phaedo* it could not yet have occurred to him.

⁵ *Phaedo* 106 D 6 which he cites on page 103 as if in support of this statement says no such thing, and the whole argument requires that soul be not an idea but participate essentially in the idea of life as snow participates in the idea of coldness and fire in the idea of heat (cf. Aristotle on Plato I note 372 and pages 508-509); Robin (*Platon*, 175-176) among others has correctly pointed out that in this argument soul is in fact conceived to be a reality intermediate between the sensible and the intelligible. F.'s account (pages 103 and 257) of the constitution of soul in the *Timaeus* is also wrong and wrong simply because he misconstrues *Timaeus* 35 A, an error which should not be committed seven-

F.'s subsequent account of the contemplation of the world in the *Timaeus* and the *Laws* depends, however, upon his notion that the function performed by soul in the *Timaeus* is a new doctrine of Plato's.

He explains that in the *Republic* contemplation of the physical heavens is rejected because the order of the sensible universe could lead only to a God of the sensible whereas the true object of contemplation here as in the *Philebus* is held to be the hierarchy of the intelligible ideas and the God which is the One that unifies them and gives them existence, but that in the *Timaeus*, since the sensible world has found its explanation in the world-soul, the elements of which are also the elements of the human soul, so that the latter can reform its disordered thoughts by knowing the regular movements of the stars, astronomy leads directly to communion with God, for God, the object of contemplation, is no longer the One that unifies the ideas but the Intellect that moves the world with orderly motion.

With such notions of a Platonic God identical with the One and the Good, whether considered to be the supreme idea or beyond the ideas as their cause and principle, I have elsewhere dealt at length¹ and here confine myself to the statement that there is no evidence to support the imputation of any such conception to Plato, for whom God and gods are always and everywhere souls, which are divine just because their contemplation of the ideas outside and above them is constant and complete, and for whom there never was such an hierarchy of the ideas as these interpretations imply. Even the merely formal difficulties in F.'s account indicate that something is amiss with his interpretation. He says that in the *Philebus*, which he dates later than the *Timaeus* (page 95), contemplation is directed to the same object as in the *Republic* (page 135); one would have to conclude then that the doctrine of contemplation in the *Timaeus*, if different from that in the *Republic*, was in turn abandoned by Plato for the older doctrine which immediately after the composition of the *Philebus* he abandoned once more in order to return in the *Laws* to the doctrine of the *Timaeus* or else, if he worked on the *Philebus* and the *Laws* at the same time, as F. suggests, that he held the two supposedly different doctrines at once. Now, F. admits that astronomy in the *Republic* is considered to be a propaedeutic, though only that, to dialectic, that is to contemplation of the ideas (pages 136 and 138); and after he has stressed the difference of the 'new doctrine' he practically eradicates the difference, saying (pages 142-145) that, since the world-soul contemplates the intelligibles and since in the *Laws* dialectic is still the sovereign science, the contemplation of the heavens in the *Timaeus* and the *Laws* too is meant to lead the human soul through union with the world-soul to the higher contemplation of the ideas and attainment of the One that is the supreme God and that this is not incompatible with the doctrine of the *Symposium*.

In the next chapter, however, he has a somewhat different explanation (pages 158-160): Plato saw that by implication at least the *Timaeus* makes the world-soul the explicative Cause and so the true God; and in the *Laws* he drew the consequences himself, for, though the One-Good of the *Republic* and *Philebus* may still have been reserved as the God of the guardians, the God that he here puts forward to satisfy the requirements of thought and to form the worthy object of a cult is not this but the animate cosmos. Still later (pages 197-198), in urging the appropriateness of the *Epinomis* as an

teen years after the appearance of Grube's article (*ClPh* 27, 1932, 80-82) and twelve after that of Cornford's translation and notes in his *Plato's Cosmology* (cf. also Aristotle on *Plato I* 409-411). A further example of the utter confusion wrought by such mistakes is F.'s statement in his note 6 on page 532 that the outer sphere of the fixed stars is called indivisible because it is made of the indivisible substance of the same, whereas the truth is that the composition of outer and inner circles is identical and the outer circle is called undivided (*ἀμερίστον*) only because it was not split as the inner circle was into seven circles (*Timaeus* 36 D 1-2).

¹ Aristotle on *Plato I*, Appendix XI, 603-610. F.'s interpretation as it was presented in his book '*Contemplation et Vie Contemplative selon Platon*' is there considered.

appendix to the *Laws*, F. maintains that the final object of contemplation is not clearly stated in the *Laws* at all but that the celestial gods, the stars, are only said to be one of the fairest things to contemplate; and later still (page 341) he declares flatly that for Plato in the *Timaeus* as for the author of the *Epinomis* and Aristotle in the *De Philosophia* the cosmic God was essentially the soul that moves the heavens.

The trouble at the root of all this and of much more of the theorizing about Plato's religion is the triple assumption, frequently tacit, that what is held to be Being in the highest sense must necessarily be God¹, that whatever is the object of contemplation must be God, and that union of the soul with this object must be the goal of contemplation. This may be religious truth; but Plato did not know it, and that is why all attempts to make his statements about souls, gods, and ideas fit these assumptions involve themselves in inconsistency and self-contradiction.

A common trait of the cosmic religion in all its expressions is the absence of the doctrine of ideas. The abandonment of that doctrine after Plato's death with the consequent identification of reality and corporeal existence in which the intelligible is supposed to be immanent is treated by F. as the chief philosophical cause of the cosmic religion; but he is more concerned to explain the other causes for the popularity of this religious attitude in the time between Plato and the Stoics: the ever widening breach between philosophical reflection and popular religion and the course of political events which broke down parochial boundaries and discredited the authority of civic cults must both have induced cultivated men to turn to a belief that would satisfy their religious feelings and not be patently inconsistent with their experience and knowledge. With the general thesis of the chapter on the spirit of these times which opens the second part of the study everyone must agree, but unfortunately some of the evidence upon which most stress is laid does not support the thesis.

For example, Menander Fr. 481 (Kock), which F. uses to show that the doctrines of the cosmic religion were already wide-spread, says nothing at all about the divinity of the cosmos or the stars in it; F.'s translation of the opening lines gives a false impression of their sense, and his commentary upon the vocabulary used in them is quite misleading². For another thing, while it is possible that the *Protrepticus* of Aristotle inaugurated the tradition of the theoretic life upon which the cosmic mysticism of the Hermetic writings depended, still in none of the certain fragments of the *Protrepticus* is the nature of the object of contemplation explicitly stated. Finally, F. goes too far when, following Tarn

¹ This is explicit in F.'s syllogism on page 157 (a true God is what is essentially Being, Being is the intelligible, the intelligible par excellence is the One-Good, and therefore the true God is the One-Good) and in his statement on page 155 that the Presocratics regarded as the supreme God that unique Cause, material or motive, that explained the complex of phenomena.

² He translates «Le plus grand bonheur avant de retourner bien vite là d'où nous vîmes, c'est d'avoir contemplé sans chagrin ces êtres augustes, le soleil et les astres» and takes *συνόρεα* in line 7 to mean «plus digne d'hommage», for he contends that *θεωρήσας* means 'the contemplation of the sage', that *ἀλύπως* is «tout le contenu du bonheur selon la doctrine d'Épicure» and that *τὰ συνὰ ταῦθ'* is an expression which 'confers on the sun and stars the rank of divinities'. In fact the lines say only: 'That man I account most fortunate who after having looked unvexed upon those majestic sights, the common sun, stars, water, clouds, and fire quickly departs whence he came'. That *συνός* is not

in ascribing to the originality of Alexander the Great the doctrine that all men are brothers because God is the common father of all, he asserts that before Alexander all Greeks alike held the opinion that Barbarians were beings naturally inferior to Greeks, natural slaves, and not fully human. He has no trouble in proving that this was indeed the doctrine of Aristotle; but Aristotle's *Politics*, the *Panegyricus* of Isocrates, and Plato's *Republic* 470 C-471 C, all the evidence that he cites, do not prove what all Greeks thought. He does not mention *Politicus* 262 D-E, where Plato protests against the common division of mankind into Greek and Barbarian¹, or the famous passage of Antiphon which denies any natural difference between Greek and Barbarian², or the lines of Aeschylus³ which call Persia and Hellas sisters of the same race, or the still more striking fragment of Sophocles⁴ which asserts that all men are of one race and none is naturally superior to any other. Aristotle's own arguments imply that before his time there were plenty of influential Greeks who denied that there was any natural superiority of Greeks as such to Barbarians as such. So this doctrine of the community of nature in all men, which F. emphasizes as a prerequisite of the universal cosmic religion, was certainly older than Alexander⁵, although it is plausible that Alexander's conquests of Greek and Barbarian alike did much to encourage the notion and to diffuse it; and, on the other hand, the combination of passages that F. repeats after Tarn fall short of convincing proof that Alexander held Heaven, the Cosmic God, to be the father of all men and himself to be his envoy.

In any case the two texts from the period between Plato and the Stoics which F. treats as most important for the development of the cosmic religion both antedate any possible influence of Alexander. The *Epinomis*, concerning the authorship of which F. now wavers⁶, he believes was meant to be an evangel, the purpose of which was to introduce into Greece a new religion, the worship of the heaven and the stars, and to make it a cult of the state; in its doctrine of the object and purpose of contemplation it transfers to the physical plane what before (i. e. in Plato's works) had characterized the contemplation of the ideas, and the connection that it makes between wisdom and piety as well as its doctrine that admiration of the Heaven leads to beatitude through the desire that is awakened for

restricted to 'divine objects' countless examples would show (e. g. Xenophon, *Cyropaed.* 4, 5, 54. Demosthenes, *Olynth.* 3, 29. Aristophanes, *Frogs* 1004); in *Periceir.* 266-67 (Jensen) Menander makes the object of θεωρεῖν a girl's finery; and ἐλύπῳς is so common that one cannot possibly require it to carry any philosophical implication at all.

¹ In *Republic* 470 C Plato does call Greeks and Barbarians 'natural enemies'; but he does not say that Barbarians as such are naturally slaves or inferior to Greeks, and that he did not so believe is indicated by *Republic* 499 C-D where he envisages the possibility that the perfect state may even now be realized 'in some barbaric region' (cf. *Phaedo* 78 A).

² Oxyrh. Pap. XI 1364, Fr. B, Col. 2, 10ff. = Diels-Kranz, *Vorsok.*, ²II, p. 353.

³ *Persae* 181-187.

⁴ Fr. 532 (Nauck²).

⁵ Even the sentiments expressed by Theophrastus in his *Περὶ εὐσεβείας* of which F. makes so much may well have been formulated before there was any possibility of that influence of Alexander which Tarn and F. suppose to have been decisive. The date of the *Περὶ εὐσεβείας* is not known, but there is no reason why Theophrastus may not have written it long before the scene at Opis at which time he was 48 years old or even before the accession of Alexander.

⁶ At one time he would incline to think it a work of Plato published after his death (157¹ and 158¹) but later (196¹) will go no further than to declare it to be a work in the line of one of the tendencies of Platonism.

understanding of the celestial order later become Hermetic commonplaces. Aristotle's *De Philosophia*, according to F., contributed even more than did the *Timaeus* to the diffusion of the cosmic religion but it was to the *Timaeus* that Aristotle owed the religious explanation of the universe which he set forth in this dialogue. He had abandoned the doctrine of ideas but in this work adopted the cosmology of the *Timaeus*, the consequences of which for the cosmic religion he drew with the fervor of a believer. For the mythical account of the soul in the *Timaeus* he substituted the positive physical doctrine that the stars and human souls are essentially identical because the common element of both is the fifth essence or ether, which is the principle of motion for Heaven or star inasmuch as it moves itself with a spontaneous motion. By eliminating the myth of the creation of the soul and giving a concrete sense to Plato's symbolism of the world-soul that envelops the cosmos Aristotle naturally identified Heaven with the world-soul. So in the *De Philosophia* he saw God in the world, the world being the temple and God the soul that moves the Heaven. This kind of interpretation of the *De Philosophia* has of late become fashionable, but there are overwhelming objections to it nevertheless. Apart from the fact that it depends upon questionable interpretations of dubious references to the *De Philosophia*, it fails to take account of Aristotle's own reference to that work in *Physics* 194 A 35-36¹, a reference which makes it clear that the *De Philosophia* contained the doctrine of an immobile final cause, it slurs over the indications that Aristotle there and elsewhere in his early work declared God to be incorporeal, and it neglects the evidence to the effect that he did not there identify soul with the fifth essence and did not mean to make either the fifth essence or soul a self-moved motion². Whatever the later interpretations of Aristotle's doctrines may have been – and it is certain that some later 'Aristotelians' did identify soul and the fifth essence –, there is no evidence that in the *De Philosophia* there was any more immanentism or confusion of soul and body than there is in Aristotle's later and extant works.

F. moves to surer ground when he comes to the Old Stoa in the third part of his study. There are first two chapters on Zeno and The Moral System which give an admirable explanation of the strength and appeal

¹ F. recognizes this as a reference to the *De Philosophia* in his Appendix I (cf. 588) where he undertakes to prove that Philoponus, *In Nicomachi Isagogen*; 1, 8-2, 42 (Hoche) and two passages of Asclepius' Commentary on the *Metaphysics* come from the *De Philosophia*; but he fails to notice the implications of Aristotle's own reference.

² For the evidence and a discussion of it cf. Aristotle on Plato I, Appendix X and especially 592-602. I may add here that F.'s proof that the *De Philosophia* is the source of the comparison of the world to a temple of the gods is by no means conclusive. Of the passages on which he relies, Seneca, *Nat. Quaest.* 7, 29-30 does not call the world a temple of the gods and 30-31 is full of notions that are almost certainly impossible for Aristotle, while in the passages of Dio (12, 33-34) and Plutarch (*De Tranq. An.* 477 C-E) there is no mention of Aristotle at all, Diogenes and Plato being the authorities cited by the latter.

of Stoicism as a simple, easily intelligible system in which the chief motive of Greek moral life, honor or glory, could be reconciled with social and political facts, religious feeling with scientific plausibility. The foundation of the system was the dogma of the City of the World in which all men – and gods – are fellow-citizens because the human soul is a parcel of the universal soul, which is God or Reason that penetrates the whole world; and F. gives an excellent account of the way in which the consequences of this dogma could at once satisfy the psychological needs of private men in that age and suit the Hellenistic monarchs who desired to base their domination upon philosophical principles.

It was Cleanthes who gave a religious and mystical turn to Stoicism; and the third chapter of this section is devoted to a translation, commentary, and analysis of his Hymn to Zeus followed by a section on the Religious Sentiment of the World in Aratus. In Cleanthes' Hymn, despite its traditional form, F. professes to find a new notion, the notion of divine grace, and a mysticism of assent in the order of the universe that expresses itself in prayerful gratitude¹; the poem of Aratus he adduces as an example of the optimistic Stoic attitude toward Providence and the first clear expression of the aesthetic feeling for the starry heavens. Cleanthes contemplates the world in order to attain to God and to fill himself with the thought that God directs everything to a good end, whereas Aratus is more sensible of the temporal indications of divine goodness and of the care that God takes of men. The two tendencies were later combined in Hermetism, but they were already familiar in the earliest Hellenistic period so that from that time on all the essential elements of the cosmic religion are present².

The century and a half from the death of Chrysippus to the middle of the first century B. C. is a period of obscurity for us because of the lack of direct evidence. At the end of that period the cosmic religion appears to be connected with no definite philosophical school or system; it has become, according to F. the common property of everyone who has partaken of Greek culture, and from then to the last philosophers of Athens and Alexandria it remains a dogma of paganism³. In the time of Cicero this religious dogmatism goes hand in hand with philosophical eclecticism, which F. in the first chapter of his fourth section ascribes to two main causes, the diffusion and consequent vulgarization of culture which led to the wide use of introductory manuals⁴ and the exclusive use of

¹ In commenting on lines 3 ff. Festugière, in his eagerness to maintain the novelty of the notion that God is the father of all men, says «l'idée que toute la race humaine soit issue de Zeus n'est pas 'très antique'». It is strange that even to maintain a thesis one could make such a statement in the face of the common epic epithet of Zeus, *πατὴρ ἀνδρῶν τε θεῶν τε*, (e. g. Iliad I 544. Hesiod, Erga 59 and Theog. 47) and such early assertions of the kinship of all men with the gods as Pindar's in Nem. 6, 1-2. 4-5 and Hom. Hymn 14, 1.

² In this connection F. properly protests against the tendency always to refer such religious notions to Posidonius as Norden does when they are expressed by Manilius.

³ F. excepts the Epicureans, of course, and would, I suppose, except the later sceptics too.

⁴ To the bibliography of this subject the study of Marian Plezia, *De Commentariis Isagogicis* (Krakow, 1949) should now be added. F.'s description (348-349) of the attitude of young men of this period to the place of philosophy in education is probably correct, but he has failed to notice the amusing fact that Plato in Republic 497 E-498 B says the same thing about the young men of his time. Can it be that it is an attitude not peculiar to any age or country?

doxographies in place of the direct study of the original philosophical writings. The effect in blunting the individuality of the various philosophical systems F. believes was further accentuated by the use which the New Academy and Sceptics made of doxographies to play off the theories of one school against another; eclectic dogmatism would be the natural reaction to this sort of subtle and exhaustive negative criticism.

With this introduction, in which at the end he has argued that the doxographies used by Cicero had their primary source in the New Academy, F. passes to Cicero's Testimony to the Cosmic Religion in *De Natura Deorum* 2, the *De Re Publica* and *De Legibus*, and the *Somnium Scipionis*. The upshot of this, the longest chapter in the book, is that the first of these writings shows that in the Hellenistic epoch the cosmic religion was enriched by the notion that God is present even in the meanest beings since all things are penetrated by the divine *vis vitalis*, that the second and third show how the cosmic religion annexed the domain of political science and joined with the needs of the time to give birth to the theory of a universal politics, and that the last reveals the development of the eschatology of the cosmic religion in the doctrine that the soul, a fragment of the divine Reason, returns after death to God and enjoys beatitude in the direct contemplation of the cosmic system. Save for the Ciceronian exaltation of patriotic virtue the *Somnium* is, according to F., a tissue of commonplaces of the Hellenistic epoch, whereas in the *De Republica* and *De Legibus*, Cicero, being concerned with the religious doctrines that uphold the state, was entirely serious and provides an explanation of the special suitability of the cosmic religion to the peculiar needs of the Romans, while of *De Natura Deorum* 2 only the second part can be used as evidence for the cosmic religion in the second century or first part of the first century B. C.¹

The other text which F. treats as a witness to this eclectic dogmatism is the pseudo-Aristotelian *De Mundo*. This he translates in its entirety except for 393 A 9–396 A 27, of which he gives a detailed outline, dates at the beginning of our era², and assigns to the literary genre of 'Introductions' to which such manuals as that of Cleomedes belong. Written for

¹ F. agrees with Reinhardt that two different sources were used for the two main divisions of this book; he argues that the source of the second part was a continuous treatise on Providence which bore fervent testimony to the cosmic religion, but he argues against Reinhardt that this same source may have treated providential Nature as at once an immanent force and an architectonic Reason. Without entering the controversy over the sources of this book, I should suggest that neither F. nor Reinhardt makes proper allowance for Cicero's ability to manipulate his sources for the purposes of the characters in his dialogue (cf. L. Edelstein, *StudIt.* N. S. 11, 1934, 131–183, especially 182–183). It is also remarkable that F. in his account of Cicero's attitude toward the traditional religion of Rome vis-à-vis philosophical theology neglects the formulation of a similar conception by Q. Mucius Scaevola and Varro (cf. the references in Ueberweg-Praechter, *Die Philosophie des Altertums*¹⁸, 470–71 and 477 and for the ascription of this formulation to Panaetius cf. Van Straaten, *Panétius*, 259–262).

² He argues that some time must be allowed for the edition of Aristotle's works by Andronicus about 40 B. C. to become widely known and that a *terminus ante quem* is

people of the world it was given an ostentatious dress, and to suit the fashion of the age that desired every study of the cosmos to be elevating it turns scientific considerations into a preachment. F. stresses in this monument of eclectic dogmatism three points of doctrine which were to have an important place in the theological literature of the first two centuries of the empire: the unity of God; the polyonymy of God; and the infinite removal of God from terrestrial things, a doctrine which became characteristic of gnosticism but which in the *De Mundo* is confused with Stoic elements that lead to the contrary doctrine of pantheism. A mixture like this, he points out, is to be found in the *Asclepius*.

All three chapters of the final section of the book are concerned with Philo. This may at first appear strange in view of F.'s vehement insistence that Philo had no system at all, that his philosophical statements are always the banalities of a manual, without substance or life, used only as commonplaces to illustrate a Biblical text or to give occasion for a rhetorical development, that there is not an original reflection in all his writings, and that what is his own is simply a sincere love of the Bible and a genuine tendency to a vague 'intellectual mysticism'. F. himself explains that Philo, being a perfect example of the average cultivated man manufactured by the dozen in the Hellenistic schools, is important primarily as evidence of the mixed culture that shortly afterwards produced the Hermetic writings; and he devotes more than a third of the whole section to listing literary, scientific, philosophical, and mystical themes that appear in Philo's writings and identifying them as Hellenistic or Alexandrian commonplaces.

Most of this identification is obviously correct; but at times he argues that a Philonic theme must have been current in Alexandrian circles because it also occurs in the Hermetic writings and the author of these could not have borrowed anything from Philo¹, and then one wonders whether his eagerness to prove everything in Philo a commonplace may not have been motivated in part by his unwillingness to admit Philonic influence upon the Hermetica. However that may be, Philo regards the contemplation of the world to be a form of wisdom in so far as it leads to the knowledge of God but also to be dangerous because it may tempt one to regard the created universe and its parts as gods and accord them the honors due only to their creator. He consistently and insistently maintained that God is transcendent, not immanent; contemplation of the world can bring recognition of His existence, but any notion of the divine essence, full understanding of which can come only from His own revelation, can be achieved only by the different way of contemplating one's own intellect, knowing one's own self. It might be thought that this is at least a significant philosophical conception and an original application of the inspiration of the Symposium to the philosophical interpretation of the Jewish scriptures. F. sees in it, however, the merging of two different Platonic tendencies of Hellenistic religious thought which met in Alexandria and which Philo tried to re-

provided by Philo, whose common comparison of God with the Great King and his body-guard must have been copied from *De Mundo* 398 A 10 ff. This latter argument is unconvincing, for, even if the influence was not the other way around, the comparison could have been suggested to Philo by scriptural passages (cf. Wolfson, *Philo* I 220f.).

¹ E. g. Philo's conception of God as *τόπος*, concerning which cf. Wolfson, *Philo* I 247 ff., and the notion of the insemination of the soul with virtue or vice.

concile by representing them as successive stages of the same ascent to God¹. Philo is significant only because he prepares one to understand the merging of these two tendencies in Hermetism, where they appear together even in a single treatise, a merging that F. ascribes to the cosmopolitan atmosphere of Alexandria.

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HAROLD CHERNISS
SELECTED PAPERS

Edited by Leonardo Tarán

ERRATUM

To be inserted on page 467:

¹ This in spite of his cogent remarks that Philo's references to the cosmos in terms borrowed from Stoicism are in his mouth merely edifying metaphors never meant literally and that his use of the conventional Stoic terminology in connection with the soul is never to be taken literally either.

R. E. WITT. *Albinus and the History of Middle Platonism*.
Cambridge University Press, 1937. Pp. xii + 147.

This, the third volume to be published in the new *Cambridge Classical Studies*, is an examination of the epitome of Platonic philosophy which bears the title 'Αλκινόου διδασκαλικὸς τῶν Πλάτωνος δογμάτων. The last two chapters of the book are devoted to an investigation of the identity of the author and to his place in the history of Platonism; the bulk of the work, the first seven chapters, is an analysis of the structure and philosophical content of the epitome with the main purpose of determining the sources of the interpretation of Plato which it presents.

A review of the evidence concerning the name 'Αλκίνοος leads to agreement with the conclusion of Freudenthal that both the *Didaskalikos* and the *Prologus* were written by a single author, Albinus; but Freudenthal's theory that our text is only a late and abbreviated edition of the original is rejected. In the last chapter the position of Albinus as a "typical middle Platonist" is more closely defined, and his theology and psychology are compared with those of Plotinus; Dr. Witt decides that Albinus was probably of little importance for Plotinus. The conclusion of the first part of the investigation is that the *Didaskalikos*, though mainly dependent upon the system of Antiochus of Ascalon, is directly derived from Arius Didymus, who in his account of Plato, while borrowing from Antiochus, introduced of his own accord elements from Aristotle and the Old Academy which Antiochus himself had not used. To reach this result Dr. Witt, after identifying the general Stoic and Peripatetic elements in the *Didaskalikos* and calling attention to the traces of Xenocratean doctrine to be found therein, sketches the characteristics and consequences of the eclecticism of Antiochus, establishes the sources from which his doctrines may be determined, and then proceeds to study systematically the doctrines in the *Didaskalikos* for agreement or incompatibility with those of Antiochus. Agreement in part with Antiochus, in part with Arius, and the presence of Posidonian elements as well as influences of the Old Academy, all this leads to the decision that the influence of both Antiochus and Posidonius is indirect; then, supposing that the author used a single doxographical source, Dr. Witt decides that this source was most probably Arius "whose account of Plato would naturally be coloured by the views not only of Antiochus but of Posidonius also." The intimate relationship of the *De Platone* of Apuleius, Hippolytus'

account of Plato (*Refut.*, I, 19), and the *Didaskalikos* is reasserted (after Howald and Sinko); but for the Arian work which is the source of all three Dr. Witt holds to the *Epitome*, rejecting—though not in very decisive terms—Howald's hypothetical Arian handbook "A."

That Albinus used the *Epitome* of Arius cannot, I think, be denied; and Dr. Witt presents cogent objections to the hypothesis that Antiochus is the direct source of the *Didaskalikos*. His own conclusion, however, requires the assumption that Albinus used a single doxographical source; and this leads him far beyond the point warranted by his evidence. Proposed as a *possibility* on p. 96 and taken for granted on p. 103, the hypothesis of a single source is presumably supported by the attempt in the intervening pages to show that the *Didaskalikos*, *De Platone*, and Hippolytus, *Refut.*, I, 19 are intimately related. Yet, in order to maintain that the *De Platone* and *Didaskalikos* have as their single source the *Epitome* of Arius, Dr. Witt has to suppose that Apuleius "took considerable liberties with his original"; but then why presume that Albinus may not have done the same? It is not plausible to suppose that the pupil of Gaius and the editor of his lectures could have followed the *Epitome* of Arius without allowing the influence of Gaius to manifest itself in his treatment of that source.

I do not wish, however, to argue the psychological improbabilities of the "Einquellenprinzip," to which Witt himself objects when Strache uses it (pp. 27, 95), but only to point out that the desire to establish Arius' *Epitome* as the source of the *Didaskalikos* has now and again led to errors in the interpretation of the *Didaskalikos* itself. In the attempt to reconcile the *De Platone* and the *Didaskalikos* Witt says, for example, that the identification of ἡ πλατωνική τε καὶ βουσιτή οὐσία with τὸ μὴ ὄν "is probably implied in chapter XXXV" of the latter work (p. 100, n. 2); but this chapter merely reproduces the doctrine of the *Sophist* concerning τὸ μὴ ὄν as "otherness" and contains no hint of such an identification.¹ It is the same thesis which induces him to cite the "hominem ab stirpe ipsa neque absolute malum nec bonum nasci" of Apuleius as a point of agreement with the οὐδὲ πάντας ἀνθρώπους ἢ σκουδαίους εἶναι ἢ φαύλους of

¹ Witt cites *Didaskalikos*, p. 189, 18-20: ἔστι δὲ τὸ μὴ ὄν . . . μετὰ συνεμφάσεως τῆς πρὸς ἕτερον, ὅπερ καὶ τῷ πρώτῳ ὄντι παρέπεται. Hermann reads: ἔστι δὲ τὸ μὴ ὄν, καθ' ὃ ἐξακούεται, οὐ ψιλλὴ ἀπόφασις τοῦ ὄντος [cf. *Sophist* 257 B-C], ἀλλὰ μετὰ συνεμφάσεως τῆς πρὸς ἕτερον [cf. *Sophist* 258 A-B], ὅπερ καὶ τῷ τρίτῳ ὄντι παρέπεται [*Sophist* 259 B, 256 E-257 A and cf. p. 189, 20-22]. So with p. 189, 15-18 cf. *Sophist* 258 E 6 ff. and 238 C-239 A. With either reading the implication is not that ἡ βουσιτή οὐσία is τὸ μὴ ὄν but, quite to the contrary, that even the idea of being itself has the attribute μὴ ὄν. Of the parallels cited above, Witt's *Looi Platonioi* contain only 258 E which is equated with p. 189, 20.

Albinus (p. 101). The order in which Apuleius treats the five senses Witt admits is not that of the *Didaskalikos*, but he calls it significant that in the latter work the order "which is exactly the reverse of the Platonic is the arrangement recognized by Arius Didymus" (p. 102). This is an unfortunate statement, for in Arius, *Frag. Phys.*, 15 (*Dox. Graec.*, p. 456, 1) the order "sight, hearing, smell, taste, touch" refers to Aristotle, *not* to Plato. Furthermore, the reason for this order is not far to seek, since it is the order followed by Aristotle himself in the *De Anima* (418 A 26-424 A 15). Finally, lest the use of this Aristotelian order in the treatment of Plato be itself considered an indication that Arius is the source, let it be noted that Theophrastus himself followed this order in reporting Plato's theory of the senses (*Dox. Graec.*, p. 500, 7-18).²

The passage on the ideas in the *De Platone* (I, chap. 6) is, according to Witt, "like the opening of *Didaskalikos* XII certainly derived from Arius Didymus" (p. 99). Now the opening of *Didaskalikos* XII does appear to be an abridgment of the fragment of Arius preserved by Eusebius (cf. Diels, *Dox. Graec.*, p. 447); but, whereas elsewhere in the *Didaskalikos* (chaps. IX, X [p. 164, 26-27, 37], XIV [p. 169, 33-35]) the ideas are said to be the thoughts of God, this doctrine does not occur in the fragment of Arius or in the Albinus passage parallel to it. Witt says that "we may conjecture" that Arius placed the ideas in the mind of God, his argument being that *Didaskalikos* XII is similar to IX and that "it is natural to conclude that both chapters are derived from Arius, and that the omission in XII has no significance" (p. 75 and note 2). This is just to assume the thesis that has to be proved, namely that the *Didaskalikos* was derived from a single source. Moreover, if Albinus copied this doctrine from the *Epitome* which was also the source of the *De Platone*, why does Apuleius not describe the ideas as

² In *De Sensu* 439 A 7 Aristotle lists the sensibilia in this order and it probably became conventional after Theophrastus who uses it in his reports of Empedocles (*Dox. Graec.*, pp. 500, 19-502, 5), Cleidemus (*ibid.*, p. 510, 4-11), and Democritus (*ibid.*, pp. 513, 10-515, 22: sight, hearing, "the other senses"), though his order for Alcmaeon, Anaxagoras, and Diogenes is different in each case (*ibid.*, pp. 506, 23 ff.; 507, 8 ff.; 510, 14 ff.). Epicurus (*Ad. Herod.*, §§ 46a-53) uses the order: sight, hearing, smell (the other two not being treated); Chrysippus (*St. Vet. Frag.*, II, p. 238, 36) listed the five senses in the Aristotelian order, preceded however by *φωνή* which he treated separately. It is not quite true to call this order "exactly the reverse of the Platonic" either, for, although in the *Timaeus* from 61 C to 68 D tactile qualities, flavors, odors, sounds, and colors are discussed in that order, Plato has already discussed sight and hearing in 45 B-47 D, so that one might treat the sections on sounds and colors as subsidiary and, following the *Timaeus* strictly, get for the Platonic order: sight, hearing, touch, taste, smell. The order of Apuleius (sight, hearing, taste, touch, smell) is very close to this.

thoughts of God?² It can hardly be more likely that Apuleius systematically excised from Arius references to this doctrine than that its occurrence in Albinus is to be credited to a source other than that common to the *Didaskalikos* and the *De Platone*.

At the same time it would have been more helpful to analyze more fully the content of chap. IX than to insist that it is similar to XII "save that the idea is not once again defined as νόησις θεοῦ." For example, it would be of some importance to notice that the second sentence (p. 163, 12-16) is reproduced almost exactly by Chalcidius (*In Tim.*, § 339 [p. 363, 5-11]) just before he comments upon *Timaeus* 51 D-E, which is the source of the last argument in chap. IX (p. 164, 1-5, not noted in Witt's *Loci Platonici*). Witt is impressed by Theiler's comparison of Varro's identification of the ideas, "exemplum secundum quod fiat," and Minerva with the statement of Albinus: οὐ μόνον ἐκ τινός ἐστι γεγονώς, ἀλλὰ καὶ ὑπὸ τινος . . . καὶ πρὸς τι (p. 163, 35-37); he, as well as Theiler, takes this designation of the idea then to indicate the theory of "the thoughts of God" (p. 72). Even in Albinus, however, this passage (p. 163, 34-37; cf. p. 163, 16-18) is an argument for the existence of ideas which has no real connection with that particular interpretation of them. A comparison of Alexander, *Metaph.*, p. 88, 20 ff. shows that neither the designation of the idea as πρὸς ὃ nor the argument in full involves any such doctrine (καὶ ὁ τῶν τεταγμένων γινομένων αἰτίαν λέγων τὸ πρὸς ἐστὼς γίνεσθαι τι παράδειγμα, τοῦτο δὲ τὴν ἰδέαν εἶναι [possibly from Aristotle's *De Ideis*; cf. Robin, *La Théorie Plat. des Idées*, note 19]). A similar criticism must be made of Witt's argument that Diogenes Laertius, III, 13 shows "that the view of the ideas as the thoughts of God was held by some members of the Academy contemporary with Alkimos." Witt contends (p. 71) that in

² In *De Platone*, chap. XII there is the definition "providentiam esse divinam sententiam, conservatricem prosperitatis eius cuius causa tale suscepit officium; divinam legem esse fatum per quod inevitabiles cogitationes dei atque incepta complentur." "In this passage," Witt remarks, "πρόνοια is identifiable with God's νοήματα" (p. 100). If by this he means that the passage identifies πρόνοια and the ideas, he should have to admit that it is inconsistent with the fragment of Arius which distinguishes God's πρόνοια from the ideas (*Dox. Graec.*, p. 447 A 24-27, cf. *Didaskalikos*, p. 167, 9-11). Apuleius' definition of providentia no more implies that the ideas are thoughts of God, however, than does the διανοηθεὶς πρῶτον μὲν ὅτι . . . of *Didaskalikos*, chap. XII (p. 167, 21), which passage Witt himself in his final section (pp. 133 f.) marks as inconsistent with the theology of chap. X and the interpretation of God's relation to the world-soul (p. 164, 35-37; cf. p. 169, 31-35), where again the ideas appear as thoughts of God. Here, incidentally, the world-soul is represented as ἀποβλέπουσα πρὸς τὰ νόητα αὐτοῦ (scil. τοῦ θεοῦ) . . . ἐφικμένη τῶν ἐκείνου νοημάτων (p. 169, 33-35) whereas in chap. XII πρὸς τινα ἰδέαν κόσμου ἀποβλέπωντος, παράδειγμα ὑπάρχουσας is said of God himself (p. 167, 7).

calling the idea *διδόν τε καὶ νόημα* Alcimus implied that God was the thinker; yet Alexander refers to a theory of the ideas as *δίδια* and *νόματα* according to which, his arguments show however, these "eternal thoughts" were *not* supposed to be thoughts of God (*Metaph.*, pp. 92, 18-28; 103, 1-4).⁴

Some discussion is wanted also of the interesting passage concerning the extent of the world of ideas and the disagreement among Platonists there indicated (p. 163, 22-27; n. b. οὐτε γὰρ τοῖς πλείστοις τῶν ἀπὸ Πλάτωνος ἀρέσκει . . .); this passage is an important piece of evidence for the history of a controversy which touched the very foundation of Platonism and for which we have testimony reaching from Aristotle's *De Ideis* (cf. *Metaphysics* 990 B 10-17; Alexander, *Metaph.*, pp. 79-83) and the seventh Platonic epistle (342 D) to Proclus (e. g. *In Parm.*, V, p. 63 [Cousin]: οὐτε τῶν κακῶν ιδέας εἰσείσομεν ὥς τινες τῶν Πλατωνικῶν).

Such omissions are not to be expected in a book which the author claims to be "an exhaustive examination of the *Didaskalikos* itself" (pp. ix and 2); the truth is that the desire to establish Arius as Albinus' source often eclipses entirely the interest in the *Didaskalikos* itself. This is not to deny the importance of establishing the historical connections of such a work as the *Didaskalikos* nor to depreciate the value of Dr.

⁴ Since the description of the idea as *νόημα* is in the Alcimus passage followed by *διὸ καὶ φησιν ἐν τῇ φύσει τὰς ιδέας ἐστάναι καθάπερ παραδείγματα* and this is practically a verbal quotation of *Parmenides* 132 D (τὰ μὲν εἶδη ταῦτα ὥστε παραδείγματα ἐστάναι ἐν τῇ φύσει) which follows immediately the refutation of the thesis that each idea is a *νόημα ἐν ψυχῇ*, the Alcimus passage (if the text is right; cf. Breitenbach *et al.*, app. crit., *ad loc.*) may be simply a stupid misinterpretation of *Parmenides* 132 B-D. Aristotle, *De Anima* 429 A 27 (οἱ λέγοντες τὴν ψυχὴν εἶναι τόπον εἰδῶν), however, points to an interpretation of the ideas as "thoughts"—and not thoughts of God—at least as early as Aristotle, and the *Parmenides* passage itself is evidence for this (cf. Friedländer, *Die Platonischen Schriften*, pp. 466 f.). Those who discuss the origin of the "thoughts of God" theory seem to overlook this indication that it was preceded by a theory of ideas as "thoughts of men." The historical transition to "thoughts of God" is lacking, although Aristotelian influence in that direction is highly probable (cf. R. M. Jones, *Class. Phil.*, XXI, pp. 324-326; Witt, p. 73, against Theiler). For Witt's attempt (p. 71) to establish Xenocratean influence on the doctrine, however, I can find no evidence. He cites only *frag.* 60 in support of his statement that Xenocrates "regarded the Dyad or World Soul . . . as the Number in which the Ideas are contained" so that "since he called both Monad and Dyad Gods" he could be said in a sense to have held that the Ideas are contained in God. *Frag.* 60, which merely defines the soul as self-moving number, is apparently a mistake for *frag.* 15 where alone the world-soul is identified with the dyad, an identification itself open to grave doubt (cf. Jones, *Platonism of Plutarch*, pp. 97 ff.); but nowhere is this dyad said to "contain the ideas," and whether it were the determinate dyad, as Heinze contends, or the indeterminate it is hard to see how it could.

Witt's contribution to the study of the history of Platonism but only to suggest that neglect of significant parts of the text in question cannot help weakening the conclusions concerning those historical connections. Of the same order is the temptation to overlook significant differences in seeking similarities which will help to establish the source. Dr. Witt in refuting Strache and Theiler points out that for all the likenesses between Antiochus and the *Didaskalikos* there are important differences. Yet in his own positive argument he is not always guiltless of the same kind of error. His eagerness to find doctrines of the Old Academy, for example, makes him discover on p. 165, 32 the theory of indivisible lines (pp. 17, 77-78), although Albinus says merely καὶ γὰρ τὸ ἐπίπεδον πρότερον ἢ τὸ σῶμα καὶ ἡ γραμμὴ πρότερον ἢ τὸ ἐπίπεδον. This, given only as an example of the priority of a part to that of which it is a part, does not, of course, imply that the line is indivisible (cf. also p. 165, 16-17: ἐπιφάνειαν νοήσαντες, εἴτα γραμμὴν, καὶ τελευταῖον τὸ σημεῖον); even for Aristotle the point is not "part" of a line (*Physics* 241 A 8).⁸

In spite of such omissions and occasional errors, however, Dr. Witt's detailed study is in the main sound; and, whether or not he has made it plausible that Arius was the chief source, he has done good service in analyzing the kind of Platonism represented by the *Didaskalikos*. His final chapter is particularly illuminating; and attention should be called to his analysis, among the sources for the study of Antiochus, of Clement's *Stromateis* VIII. It is to be hoped that Dr. Witt will soon publish the critical text of the *Didaskalikos* which along with the present study was presented as a Cambridge Dissertation.

⁸ Similarly far-fetched is the contention (p. 15) that the account of λόγος in chapter IV is ultimately Xenocratean. Xenocrates had a triple division (ἐπιστήμη, δόξα, αἰσθησις) whereas Albinus has only ἐπιστήμη and δόξα and makes the correlate of the latter τὰ αἰσθητά, its ἀρχή being αἰσθησις (p. 154, 28-29). The definition of αἰσθησις (p. 154, 29) should be compared with the Platonic *Definitions* 414 C; its ultimate source is *Philebus* 33 E-34 A as that of μνήμη (p. 154, 34) is *Philebus* 34 A 10 and that of δόξα (p. 154, 35) is *Philebus* 39 A (cf. p. 155, 12-15 with *Philebus* 39 B-C). The ultimate source of τὸ βέβαιον connected with ἐπιστήμη, of δόξα with the opposite, on p. 154, 22 ff. is *Philebus* 58 E-59 C. None of these parallels is given in Witt's *Looi Platoniōi*; instead he compares parts of chap. IV with Sextus, *Adv. Math.*, VII, 216 ff. (pp. 53-55).

PIERRE LOUIS. *Albinos: Épitomé*. Paris, "Les Belles Lettres," 1945.
Pp. xxxiii + 184.

This book is a critical edition and translation of that "exposition of Plato's principal doctrines" which hitherto has been generally available only in the third volume of the "Didot Plato" and in the sixth volume of Hermann's Teubner edition of Plato's Dialogues¹ where it is called *διδασκαλικὸς τῶν Πλάτωνος δογμάτων* and is ascribed to 'Αλκίνοος. Dr. Louis like almost all modern critics adopts Freudenthal's explanation of 'Αλκινόου as a palaeographical error for 'Αλβίνου; in the matter of the title he follows Diels and Alline, holding that *Ἐπιτομή*, which appears in three of the oldest MSS, is authentic rather than *Διδασκαλικός*, which most of the MSS display.²

For the constitution of the present text ten MSS were used, whereas Hermann based his text upon two MSS only and according to Louis often gave erroneous reports of these.³ To the best of my observation Louis's text differs from that of Hermann in 82 places. Most of these changes represent MS readings unknown to Hermann or neglected by him; but two are emendations of Chantraine's,⁴ and eight are emendations proposed by Louis himself.⁵ The present text

¹ R. E. Witt in the preface to his study, *Albinus and the History of Middle Platonism* (Cambridge, 1937), states that he had submitted along with his dissertation an emended text, critical apparatus, and new translation of the *Didaskalikos*, the publication of which was precluded by considerations of space.

² Since the first line of the work itself declares it to be *τῶν κυριωτάτων Πλάτωνος δογμάτων . . . διδασκαλία*, this has more claim to the honor of being the "authentic title," if we must speak of such a thing, than any superscription in our MSS.

³ These two were Parisinus gr. 1962 (P) and Parisinus gr. 1309 (Q), however, the former of which is according to Louis the best MS and the latter the oldest of those among his MSS which descend from the archetype through a copy other than P.

⁴ VI, 10 (p. 160, 11 Hermann): *δνομα*; XV, 3 (p. 171, 29 Hermann): *δμοίων*. Hereafter the references by chapter and section are to the text of Louis; those by page and line in parentheses are to that of Hermann.

⁵ X, 1 (p. 164, 9): *μέτοχα* for *μετουσίᾳ* MSS; X, 4 (p. 165, 8): *ἀδιάφορον* for *διαφορά* MSS; XIV, 1 (p. 169, 14): *τὰ μὲν δὴ σώματα <συν>ιστάς, <ἐκ> τῶν ἐμφαινομένων*; XIX, 2 (p. 174, 7): *τι κατιόν* for *τὸ κατιόν* MSS; XIX, 3 (p. 174, 19): *ἀπὸ γλώττης* for *ἀπ' αὐτῆς* MSS; XXVIII, 1 (p. 181, 24): *ἀνθρώπων* for *ἄνθρωπον* MSS (cf. *Republic*, 613 B 1); XXIX, 1 (p. 182, 16-17): *τὰ δὲ ἐν εἶδει αὐτῆς· λογικαὶ δὲ* for *τῷ δὲ ἐν εἶδει αὐτῆς· λογικαὶ δὲ* MSS; XXX, 5 (p. 184, 19): *εὐπαθῆς* for *ἀπαθῆς* MSS. Of these the first, second, fifth, and sixth are at least plausible. The third (XIV, 1) is improbable, for the unanswered *μὲν* supports Hermann's assumption of a lacuna later in the sentence. The fourth (XIX, 2) is at best unnecessary. In place of the seventh (XXIX, 1) I should prefer to read *τὸ δὲ [ἐν] εἶδει αὐτῆς λογικαὶ τε καὶ αἱ περὶ τὸ ἄλογον . . .*: "The two species of virtue are intellectual virtues and those of the unreasoning part of the soul"; misunderstanding of the dual caused both the insertion of *ἐν* and the change to *τῷ*. The eighth (XXX, 5) assumes an improbable use of *εὐπαθῆς*; and I suspect that *ἀπαθῆς* *ἐν*

is certainly a closer approximation to what Albinus wrote than any hitherto published, and it is moreover equipped with the first really critical apparatus of the writing yet to be made available to the public. As one might have expected, however, at least three-fourths of the four score variations from the text of Hermann do not affect the meaning of Albinus as it was represented by the earlier text. As fair examples of the more interesting improvements resulting from Louis's wider and more accurate knowledge of the MSS may be mentioned αὐτὸς τῇ ἑαυτοῦ φύσει in X, 3 instead of Hermann's αὐτοῦ τὸ σχῆμα φύσει (p. 164, 33) and συμπαγὲς in XVIII, 1 (cf. *Timaeus* 45 C 4) instead of Hermann's συμπαθὲς (p. 173, 19). On the other hand, in VI, 5 Louis has printed τὸ ἄρα ποιὸν in place of Hermann's τὶ ἄρα ποιὸν (p. 159, 4), presumably because the best MSS have τὸ, although Q S R T have τὶ; but here τὶ must be correct, unless we are to suppose that Albinus did not know the nature of the third figure, of which this is an illustration. In XXXI, 1 Louis has adopted Hermann's "emendation" ἀγαθόν for the κακόν of the MSS, retaining however the clause πάντως ὁ τοιοῦτος ἐξαπάτηται which Hermann bracketed (p. 185, 3-4); but κακόν is correct, for ἀποικονομησόμενος means not "retirer de" but the opposite and the whole sentence as the MSS give it means: "And if one has recourse to evil, such a person is assuredly deceived in his intention to get rid of a greater evil by means of some lesser evil; and in this way his course also will be involuntary." In a few places the reading of the MSS which Louis prints is plainly corrupt. So in X, 7 he retains τὸ δώματον αὐτὸ εἶναι as did Hermann (p. 166, 1); his own translation assumes αὐτόν, however, which should be written instead of αὐτό* (cf. *ἔχων*, p. 165, 33, which guarantees the gender of the subsequent ambiguous forms). In XXV, 4 Louis prints ἔτι τε without recorded variant where Hermann read ἔτι δὲ (p. 178, 10); but both syntax and logic require subordination of this first clause, a requirement which could be easily met by reading ἐπεὶ τε. In XXXII, 1 Louis like Hermann (p. 185, 26) reads καὶ τὰ ἡμέτερα ἔργα οὐδ' ἐφ' ἡμῖν (though P, the oldest MS, omits τὰ) which he translates "et bien qu'elles apparaissent dans nos actions, elles ne dépendent pas de nous"; this cannot be extracted from the Greek, and the following sentence shows that the author cannot have called the πάθη our actions, so that something like Shorey's suggestion to read a negative in place of τὰ is called for (*C. P.*, III [1908], p. 97). In XXXIV, 2 Louis retains αὐτονομῇ (p. 188, 22 Hermann) which he translates "aura sa fonction propre"; but, while the context requires some such meaning, αὐτονομῇ will not supply it, and the text here is certainly unsound.

The translation, which is printed on alternate pages, though generally adequate to the Greek of Albinus, nevertheless contains more inaccuracies than there is here room or need to list. A few of the more serious ones must be mentioned, however. The translation of IV, 5 (p. 155, 12-14), "Lorsque l'âme, après avoir façonné par la pensée ses opinions à l'aide de sensations et de souvenirs contemple les premières comme les seconds qui en dérivent, . . ." misconstrues τῇ διανοίᾳ and inverts the sense of the Greek which means: "When-

τὸς εἶναι should simply be excised as a marginal note made by some strict Stoic reader, for the sentence has better balance without it.

* This was suggested by Shorey, *C. P.*, III (1908), p. 97.

ever the soul after having fashioned judgments out of sensation and memory looks in thought to these (judgments) as if to those things from which they were derived (i. e. to the sensations themselves). . . .”⁷ In VIII, 3 (p. 163, 4) εἰ μέλλει κατὰ πᾶν δέχεσθαι τὰ εἶδη means “if it is going to receive the forms throughout all its extent” (cf. *Timaeus* 51 A 2) and not “s’il faut qu’elle reçoive absolument toutes les formes.” In IX, 1 (p. 163, 20) “à la nature” may be only a misprint for “à la matière” as a translation of τῇ ὕλῃ.⁸ In X, 4 κατὰ μετοχὴν γάρ τινος ἔσται οὗτος καὶ μάλιστα ἀγαθότητος (p. 165, 7-8) means “for he would exist by participation in something and especially in goodness,” not “car s’il est une chose à laquelle il participe, c’est certainement le bien,” a translation which mistakes both the Greek and the argument.⁹ To translate παρὰ πάντας ἀνθρώπους . . . παρὰ πάντας ἵππους . . . παρὰ τὰ ζῷα in XII, 1 (pp. 166, 37-167, 2) “en comparant tous les hommes, . . . en comparant tous les chevaux, . . . en partant des êtres animés . . .” is to betray amazing ignorance of the technical use of παρὰ to express the existence of the ideas apart from the particulars (cf. *Phaedo* 74 A 11 and Aristotle’s distinction in *Anal. Post.* 77 A 5-7). The first lines of XIII, 3 (p. 169, 3-5) present a small problem; but ἐκινεῖτο μὲν τὸ πρῶτον τοῖς ἴχνεσιν cannot mean “se mouvait d’abord à leur image,” which would not make sense even if the Greek could bear such a meaning. τοῖς ἴχνεσιν and the preceding τούτοις must go together: “matter impressed with these traces moved at first in disorder.” The problem is ὑπὸ τοῦ θεοῦ which precedes ἡ ὕλη and causes doctrinal difficulty. It should be deleted, I think, as a false anticipation of the phrase in εἰτα ὑπὸ τοῦ θεοῦ which follows (cf. ὅταν ἀπὸ τινος θεός in *Timaeus* 53 B). In XIII, 3 (p. 169, 9-10) τὰ λεπτομερέστερα does not mean “les plus légers” nor does τῶν ἀδρομερεστέρων mean “les plus compacts,” for the latter are things “consisting of coarser particles” (the former consisting of finer particles) so that they are really less compact, as is shown by *Timaeus* 58 B 2-5 which indicates also that εἰς τὰς . . . χώρας does not mean “les lieux qu’occupent les plus compacts” but “the interstitial spaces of the coarser bodies.” πάντα δὲ τὰ φλεγμαίνοντα ὑπὸ χολῆς τοῦτο πέπονθε in XXII (p. 176, 1)

⁷ On the following words, ἀναζωγράφουσιν τὸ τοιοῦτον ὁ Πλάτων καλεῖ ἐστὶ δὲ καὶ φαντασίαν, Louis has a note (note 39) referring to *Theaetetus* 161 E and *Sophist* 263 D for φαντασία in the sense of “imagination,” which it means in neither passage (cf. *Sophist* 264 B 1 where φαίνεται shows that it means “appearing” in its widest sense); the appropriate reference for this statement of Albinus is *Philebus* 40 A 9: καὶ δὴ καὶ τὰ φαντάσματα ἐξωγραφήμενα.

⁸ So in VI, 6 (p. 32 of the translation) a clause, s’il n’a ni commencement ni milieu ni fin, has been dropped before “il n’a pas de limites” (a case of haplography), and in X, 8 the translation of ἡ πῦρ (p. 166, 8) is missing. Most of the misprints in the volume can be corrected by the reader at sight; the following, however, are not transparent: in note 134 for IX read IV, in note 161 for 52 b read 53 b, in note 314 for 62 e-63 a read 61 e-62 a, in note 374 *des animaux* should apparently be *de l’âme*, in note 436 for *Dialogues suspects* read *Dialogues apocryphes*, and in note 475 for 33 a read 33 c.

⁹ κατὰ μετοχὴν causes Louis trouble in XXVII, 4 (p. 180, 37) also, for he translates τὰ δὲ κατὰ μετοχὴν there “les biens susceptibles de participation,” though it means the opposite; “things that are good by participation (soil. in the true good).”

means that "everything that is inflamed is so because of bile," not "toutes les inflammations causées par la bile produisent aussi ces affections." *Timaeus* 85 B 5-7, to which Louis refers, should have saved him from this careless mistake. It is still worse, however, when he translates *ὡς δείξομεν* in XXIII, 1 (p. 176, 8) "comme nous l'avons montré," not seeing apparently that the future refers to the proof of the immortality of the soul to be given in chap. XXV. A slip of the pen may have been responsible for "avant le mort" as a translation of *μετὰ θάνατον* in XXV, 2 (p. 177, 35); but, when Louis wrote "avec elle" for *μετὰ ταύτην* in XXXIV, 3 (p. 188, 28), he was apparently trying to mitigate by means of this impossible rendering the contradiction between the text of Albinus as he reads it (*τρίτην τὴν δημοκρατικὴν καὶ μετὰ ταύτην τὴν ὀλιγαρχικὴν*) and *Republic* 555 A-B, where democracy follows oligarchy. The translation of *πλεονάζει ἐν τῷ λυπεῖσθαι* in XXXII, 2 (p. 186, 5), "il est submergé par le chagrin," with the note that *πλεονάζειν* is not Platonic but is found in *Timaeus* Locrus, disregards the nuance of Stoic terminology (*πάθος* = *πλεονάζουσα ὁρμή*, cf. *S. V. F.*, III, p. 130, 8 ff.); Albinus means that the person who is afraid has an excess of pain, though he has not been entirely deprived of pleasure.

Louis has generally paid insufficient attention to the Peripatetic and Stoic influence upon Albinus' manner of expression as well as upon his manner of interpretation. To be sure, the notes which are subjoined to the translation are meant not to be a "commentary" but only to indicate the passages in the Platonic corpus from which Albinus borrowed,¹⁰ and even so they do refer now and again to Aristotelian or to Stoic usage. The very presence of a few such references, however, may give the impression that these references exhaust the subject, and the reader should be forewarned that this is not the case. No observation is made even upon such obviously and distinctively Aristotelian passages as the classification of theoretical knowledge in III, 4 (pp. 153, 36-154, 4), the *αἶδη* inseparable from matter which are distinguished from the ideas in IV, 7 (p. 155, 34-36), or in X, 2-3 the distinction between the mind in potency and the mind which actually knows all things at once and always (p. 164, 17-18), the unmoved mover that moves as the object of desire (p. 164, 20-24), and the argument whereby it is established that the first *νοῦς* can have no other object than itself (p. 164, 24-26). No indication is given of such simple facts as that *φυσικὴ ἔννοια* is Stoic terminology which in IV, 6 (p. 155, 21-29) Albinus tries to adapt to Platonism, that in dealing with hypothetical syllogisms Albinus uses the technical terminology of the Stoics (e. g. VI, 7 [p. 159, 22]), that the words which in XIV, 6 (p. 170, 20-23) precede the famous quotation from the *Timaeus*, to which reference is duly made in note 220, are themselves Chrysippus' definition of time, or that all of XI is an adaptation of Aristotelian arguments and is directed against the Stoic doctrine of the corporeality of qualities.

The references to the Platonic corpus, though many and usually

¹⁰ Cf. p. XX, n. 38. Pp. XIX-XXI of the introduction contain a brief discussion of the sources of Albinus. Louis admits that Albinus must have been profoundly influenced by Gaius and must have used earlier commentaries and handbooks but insists that the multitude of citations of the Platonic dialogues proves that these were his principal source.

correct, are themselves neither complete nor always relevant. It is disappointing, for example, to find *Republic* 476 C ff. cited for IV, 3 (p. 154, 22-28) and not *Philebus* 59 A-C and *Timaeus* 29 B-C, to be told that the account given in XIV, 7 (p. 171, 7-10) of Saturn, Jupiter, and Mars does not occur in the *Timaeus* and not to be told that it does occur in *Epinomis* 987 C, to find no reference to *Epinomis* 984 B-C or Aristotle's frag. 23 for the zoögonny of XV, 1 (p. 171, 14-17), or to be given everything but the pertinent reference, *Laws* 837 B-D, for the three species of love in XXXIII, 3. All too often a reference is given to a passage in which one finds the word used by Albinus, to be sure, but in a different sense or unrelated context. An example of this kind of irrelevance is the reference to *Phaedo* 109 B and 111 B and *Timaeus* 58 D for the αἰθήρ of XV, 4 (p. 171, 30-31). The name αἰθήρ occurs in those Platonic passages, but the thing named is not ζῳότατος in them as it is for Albinus (cf. *A. J. P.*, LVII [1938], p. 372), who has here adapted the entirely different Aristotelian body to Platonic cosmology. A still more flagrant example is the statement (p. 104, n. 310) that the word ἀντηληπτική in XIX, 5 (p. 174, 33) was borrowed from *Definitions* 416, for in the two passages both the context and the meaning of the word are entirely different. At times one is forced to wonder whether Louis verified even his references, not to mention the contexts, with proper care, as when in his note 59 he cites *Sophist* 287 B for the word ἀπόφασις. There is no such passage, of course; but the article on ἀπόφασις in Ast's *Lexicon* also contains a reference to this non-existent passage, a misprint apparently for *Sophist* 257 B.

NOTES ON PLUTARCH'S *DE FACIE IN ORBE LUNAE*

THE following notes were composed in the course of preparing for the Loeb Classical Library a new edition and translation of this essay of Plutarch's. With the exception of the first note, which is here included by way of example, they deal with difficulties that require treatment too extensive to be given in that edition; and, since they also contain what I believe to be unobserved evidence or new applications of evidence, I have thought it proper to make them available to students and critics in a separate publication.

My references are made to the conventional pagination of Xylander, but I have added in parentheses the pertinent pages and lines in Volume V of Bernardakis' Teubner edition. Where I refer to the evidence of the two MSS in which the essay is preserved my statements are based upon my own reading of photostats of those MSS, photostats which were generously put at my disposal by Dr. William Helmbold. It is well known that Wyttenbach's *apparatus* did not pretend to be complete. Bernardakis' report of the MSS is quite unreliable; and unfortunately this is also true of Raingeard's separate edition *Le ΠΕΡΙ ΤΟΥ ΠΡΟΣΩΠΟΥ de Plutarque*, Paris, "Les belles lettres," 1935. In the latter I have counted 88 mistakes, great and small, in the report of the readings of the MSS, E and B; one ex-

ample of the unreliability of this self-styled "texte critique" will be found in my first note. Where the MSS themselves or photographs of them are not available critics should consult for the time being M. Treu's report of the deviations of Dübner's text from E and B (*Zur Geschichte der Überlieferung von Plutarchs Moralia*, II [Ohlau, 1881]), although even this report is erroneous in some few places.

920 C (p. 403. 8):—*τὴν ἐκάρτων* is the reading of the MSS, as Bernardakis implies. Raingeard mistakenly reports *τῶν ἐκάρτων* E, B and prints this reading in his text.

921 C-D (p. 406. 2-8):—The MSS have *τῆς οἰκουμένης εὖρος ἰσῆς καὶ μήκος*. Leonicus changed *ἰσῆς* to *ἐχούσης*, and this was adopted by Stephanus. Bernardakis proposed *ἰσὺν ἐχούσης*. Raingeard changed *τῆς* to *γῆς*, took *οἰκουμένης* to have "sa valeur modale," and retained *ἰσῆς*. A participle is necessary, but *οἰκουμένης* cannot serve for this: Raingeard's *γῆς οἰκουμένης ἰσῆς* is not Greek. In any case *ἰσῆς* is certainly wrong, for no one in Plutarch's time held the *οἰκουμένη* to be as broad as it is long (cf. Agathemerus 1. 2 [*Geographi graeci minores* (ed. C. Müller), II, 471] and Berger, *Geschichte der wissenschaftliche Erdkunde der Griechen*², pp. 161-64, 325, 405 ff., 476-79, 541, 575-76)

and the premises of this argument of Lamprias' are those which would be accepted by the "mathematicians" whom Apollonides represents (cf. *ὡς φατε* in D, p. 406. 7 *infra*¹). There is in fact no reason to introduce the comparative dimensions of the *οἰκουμένη* at all, for the point is simply that, if it has *any* dimensions, *some* visual rays should be reflected from the moon to it as well as some from the moon to the ocean. So, Lamprias asks, is it possible that *every* visual ray (*πᾶσαν* of the MSS is right) when reflected from the moon should in like manner reach the ocean, even² the visual rays of those who are sailing on the ocean or who like the Britons dwell in it? There follow the words (p. 406. 6-8): *καὶ ταῦτα μηδὲ (μὴ δέ, MSS) τῆς γῆς, ὡς φατε (ἐφατε, MSS; see n. 1 *infra*), πρὸς τὴν σφαῖραν τῆς σελήνης κέντρου λόγον ἐπεχούσης*. Wyttenbach wished to change *μηδὲ* to *μέντοι* or *δέ δὴ*; and Prickard (*Selected Essays of Plutarch*, II [1918], 261), translating as if there were no negative, "and this even if the earth does, as you said that it does, occupy a point central to the sphere in which the moon moves," considers³ this to be a quotation of the second hypothesis of Aristarchus in his essay, "On the Sizes and Distances of the Sun and the Moon."⁴ Reference to the position of the earth in the center of the moon's orbit would not, however, increase the improbability that visual rays starting from the ocean are reflected from the moon to the ocean as well as those starting from the land, which is certainly the intention of the clause that begins *καὶ ταῦτα*. If the meaning were that the earth is only a mathematical point in space, this could be used as a refutation of *any* extended reflection of the earth in the moon; but then Plutarch should have said *σημείου λόγον* instead of *κέντρου λόγον*,⁵ especially if he was quoting from Aristarchus. A quotation from Aris-

tarchus or a reference to him here is more than improbable, however, not only because of the *μηδὲ*, which there is no good reason to eliminate, but also because in the next sentence (p. 406. 10) Lamprias refers by name to Hipparchus,⁶ as if he had just been speaking about a doctrine accepted by him. Now Hipparchus adopted the theory that the orbits of the sun and moon are eccentric with respect to the earth.⁷ Consequently, Lamprias in referring to Hipparchus and to any "mathematicians" who like him accept the hypothesis of eccentrics or of epicycles or of a combination of the two is quite justified in saying "and that too even though the earth, as you say, does not have the relation of center to the orbit of the moon." The point of the added clause is moreover relevant to his argument, for, if the earth is not the center of the moon's orbit, it is still less reasonable to suppose that the same part of the earth's surface (i.e., the outer ocean) is always and from all points seen reflected in the moon.⁸

921 D (p. 406. 9-10):—*τὴν δὲ πρὸς τὴν σελήνην ἢ τῆς ὀφθαλμοῦ κλάσιν*, MSS. Raingeard prints this but with an interpretation which makes no sense in the context: "quant à la brisure contre la lune ou à la vue qui se brise d'elle-même." The *ἢ* before *τῆς ὀφθαλμοῦ* is lacking in the Froben edition of 1542, the Basiliensis. The version of Xylander omits it; and most editors follow Wyttenbach in deleting it, interpreting either "the reflection of the visual ray to the moon" (so Wyttenbach and Kepler before him), which is beside the point, or "the reflection of vision from the moon" (so Prickard and Amyot before him), which cannot be got out of the Greek. Lamprias' point is that the calculations of the angles of reflection belong to the province of mathematicians like Hipparchus but not the physical explana-

tion of vision and reflection. This is true both in the specific case of the moon and in general. I should therefore read τὴν δὲ πρὸς τὴν σελήνην ἢ (καθόλου) τῆς ὁψews κλάσιν: "the reflection of vision either in respect to the moon or (in general)." Cf. *De tranquillitate animi* 468 E, τὸ καθόλου τῆς μοχθηρίας opposed to τὸ πρὸς ἡμᾶς.

922 B (p. 408. 13-15):—Lamprias, arguing against the Stoic theory of the moon's constitution, asks how the air is preserved and dwells in company with fire for such a long time: ὥσπερ ἥλος ἀραρῶς ἀεὶ τοῖς αὐτοῖς μέρεσι⁹ καὶ συγγεγομφωμένος. Van Herwerden (*Lectiones rheno-traiectinae*, p. 117) pointed out that συγγεγομφῶσθαι is used not of the nail itself but of the objects held together by nails (cf. besides *Numa* 9. 66 A, to which he refers, *Pyrrhus* 33. 405 C, where the word is used metaphorically); and he therefore proposed to change συγγεγομφωμένος to συγγεγομφωμένοις or ἐγγεγομφωμένος. The nominative singular is necessary because it is the stability of the air that is in question, not that of the parts of the moon where the air remains; and συγγεγομφωμένος is the more appropriate because the question is how the air is held together as a single object instead of dispersing.¹⁰ The initial objection of Van Herwerden is well taken; the solution, however, is not to change the participle but to alter ἥλος to ἥλοις: "as it were with nails fixed forever in the same places and riveted together." The two participles are not redundant but make two different points: since neither the position of the face on the moon nor its configuration ever changes, if the face is simply the air on the moon as the Stoics say (cf. *SVF*, II, 199. 3-5), this air must somehow be held together in an unchanging form and confined always to the same parts of the moon. An indication of the way in which this diffi-

culty might be met can be found in Simplicius *De caelo*, p. 457. 25-30.

923 C (p. 411. 13-14):—The MSS have τοὺς ὑποκειμένους τῇ μεταφορᾷ τῆς σελήνης, but Plutarch uses μεταφορά elsewhere only in the sense of "metaphor." The word certainly does not mean "phase of the moon" here, the meaning ascribed to it in LSJ, s.v. μεταφορά 3, for that would be entirely irrelevant to the context. Turnebus proposed καταφορᾷ, i.e., those situated in the place where the moon would fall, right "under its stroke"; but καταφορᾷ τῆς σελήνης would certainly mean "the setting of the moon" (cf. LSJ, s.v. καταφορά II, 1), and this is as irrelevant to the context as the sense, "phase of the moon." What is wanted is περιφορᾷ, the regular word for the "circuit" of heavenly bodies (cf. *De facie* 939 E, *De an. proc. in Timaeo* 1030 B-C, *Lysander* 439 D); περι- and μετα- written in such ligatures as are used for them in E could be easily confused.

924 B (p. 413. 14-17):—οὐ τμήματα δοκῶν ἀποκρισθέντα τῆς γῆς ἐκατέρωθεν μὴ φέρεσθαι κάτω διὰ παντός (Bernardakis; διαπαντός, MSS) ἀλλὰ προσπίπτοντα πρὸς τὴν γῆν ἐξωθεν εἰσω (Bernardakis; ἔσω, Wytttenbach, Emperius; ἰσως, MSS) διωθεῖσθαι καὶ ἀποκρύπτεσθαι περὶ τὸ μέσον; This is one of the paradoxes that Lamprias develops against the Stoic doctrine of "motion to the center," and Prickard (*Selected Essays of Plutarch*, II, 310, n. 4) explains the sense of the argument as follows: "A beam is sawn into two segments on the earth's surface. The two segments, which at first are separated by a short interval, move simultaneously towards the earth's centre, but in converging, not parallel, lines, and jam each other long before they reach it."¹¹ Now, nothing in the Greek suggests the collision of two objects before they reach the center, which

is the whole point of this interpretation, or even that the supposed event involves a pair of objects at all. Moreover, *τῆς γῆς ἐκατέρωθεν* cannot mean "[sawn off] at the surface of the earth on either side," as Prickard translates it, but can mean only "on either side of the earth." By no stretch or perversity of the imagination could it be said to follow from Stoic theory that "sections of beams sawn off" anywhere must in any way penetrate to the center of the earth. All translators and interpreters of this passage known to me have assumed, however, that *τμήματα δοκῶν* must mean "sections of wooden beams." The word *ἀποπρισθέντα* would seem to require this interpretation, but that word itself may have been the "correction" of a scribe who did not know or who had forgotten that *δοκός* also means a kind of meteor (cf. Pliny *NH* 2. 26. 96; Arrian *apud* Stobaeus *Ecl.* 1. 28. 2 [I, 231. 3 ff. (Wachsmuth)]; Olympiodorus *In meteorologica*, p. 62. 23; Hesychius, s.v. *δοκοί*; cf. Seneca *Nat. quaest.* 1. 15. 4 and 7. 5: "trabes"). The notion that these meteors appear in the eastern and western skies (cf. Arrian, *loc. cit.*, p. 231. 5 ff.; [Aristotle] *De mundo* 395^b 10-17) indicates the meaning of Plutarch's *τῆς γῆς ἐκατέρωθεν*. If *τμήματα δοκῶν* does mean "pieces of meteors,"¹² it is most probable that *ἀποπρισθέντα* is a mistaken correction of *ἀποπρησθέντα*. Hesychius gives *ἀπέμαρεν* (i.e., *ἀπεμάρανε*, Musurus) as a meaning of *ἀπέπρησεν*; and Aristotle says that all comets observed in his time have disappeared *ἀπομαρανθέντες κατὰ μικρόν* (*Meteorology* 343^b 14-17).¹³ I should make this slight emendation, therefore, and translate: "Not that pieces of meteors burnt out on either side of the earth do not move downwards continually¹⁴ but falling upon the surface of the earth force their way into it from the outside and conceal themselves about the center?"

925 D (p. 417. 10-15):—Plutarch here states that the highest estimate of the moon's distance from the earth is 56 times the radius of the earth. Inasmuch as he has just cited the treatise of Aristarchus, *On the Sizes and Distances of the Sun and the Moon*, for the ratio of the distance of the sun from the earth to that of the moon from the earth, one might have expected his calculation of the moon's distance to be drawn from the same source; and in fact Tannery (*Mémoires scientifiques*, I, 394, n.***) says without further discussion: "D'après Plutarque (*De facie in orbe Lunae*, X) Aristarque aurait supposé au plus $L = 56 t$." Now, in the first place, *καίτοι δ τὴν σελήνην ἐπὶ μήκιστον αἶρων . . . φησὶν* is a strange way of referring to the person or the treatise just mentioned by name in the preceding sentence; but, in any case, the reference cannot be to that treatise, for there it appears that Aristarchus made $L = 19 t$ (cf. Heath, *Aristarchus of Samos*, pp. 338-39 and 350). In this treatise Aristarchus took the apparent diameter of the moon to be 2° , an estimate which he later corrected to $\frac{1}{2}^\circ$; but, if this correction be applied to the results of the treatise, we get for Aristarchus' value of L not 56 but about 76 semidiameters of the earth (cf. Schiaparelli, *Scritti sulla storia della astronomia antica*, I, 339, n. 3). It is possible, of course, that in some treatise now lost Aristarchus introduced not only the corrected estimate of the apparent diameter of the moon but other qualifications also which caused him to arrive not at this figure but at 56 t as the value of L . Even such an assumption, however, would not resolve the difficulties of this passage of the *De facie*. It would still remain scarcely possible that Plutarch, having just mentioned Aristarchus and the extant treatise by name, could say *καίτοι δ . . . αἶρων* if he meant by this

to refer to Aristarchus at all. Moreover, whoever it was that gave 56 t as the value of L,¹⁶ Plutarch still would be mistaken in calling him the man who removes the moon furthest from the earth, for, not to mention other calculations,¹⁶ Hipparchus, who has been referred to at 921 D *supra*, calculated the mean distance of the moon at $67\frac{1}{2}$ t,¹⁷ which is considerably more than Plutarch's "maximum."

There is, however, no possibility of an error in the text of Plutarch, for his statements and calculations in this passage are entirely consistent among themselves. His figure of 40,000 stades for the radius of the earth corresponds with Eratosthenes' calculation of the circumference of the earth at the equator;¹⁸ and in calling this a mean calculation he probably had in mind such lower estimates of the circumference as the 240,000 and the 180,000 stades attributed to Posidonius¹⁹ and the higher estimates of 300,000 stades to which Archimedes refers (*Arenarius* 1. 8 [*Opera omnia* (ed. Heiberg), II, 220. 7-14]) and of 400,000 stades mentioned by Aristotle (*De caelo* 298^a 15-20). His result implies that he took the distance of the sun from the earth (S) as equal to 19 L, that is the mean between the lower and upper limits which he quotes from Aristarchus. Then $L (56 \times 40,000) = 2,240,000$ and $S (19 \times 2,240,000) = 42,560,000$ or 1064 semidiameters of the earth; $S (42,560,000) - L (2,240,000) =$ the distance of the sun from the moon (40,320,000), which is "more than 40,300,000."

927 A (p. 421. 14):—μεταστήναι vac. 7 E, 9 B. Wytttenbach's supplement ἀρξάμενα was rightly rejected by Adler, who proposed either to accept the τάξιν καὶ suggested by Bernardakis or to read κόσμον καὶ. Raingeard proposed ταύτην τήν. What is wanted, however, is a subject for ἀπεργάσθαι, and this must be

neuter plural. Either τὰ σώματα (cf. ll. 6-7 *supra*) or τὰ μέρη (cf. ll. 16-17 *infra*) would fit the sense, but the former fits the space better.

928 D (p. 425. 17-18):—The MSS read πολλήν δὲ ὑφ' αὐτὴν ἔχουσιν ἀνέμων vac. 25 E, 26 B διενεῖσθαι καὶ κομήτας. Madvig's πολὺν for πολλήν is guaranteed by the sense and structure, for the reference must be to τοῦ αἰθέρος in the preceding line. Adler,²⁰ accepting this change and properly rejecting the supplements of Wytttenbach and Bernardakis, proposed: πολὺν δ' ὑφ' αὐτὴν ἔχουσιν, <ὧ σώματα γεώδη ὑπ'> ἀνέμων <ἀνερχθέντα πωγωνίας αὐτοὶ φασιν συμπερι>διενεῖσθαι καὶ κομήτας. This "restoration" is based upon Stobaeus *Ecl.*, I, 228. 24 ff. (Wachsmuth): οἱ δὲ ὑπ' ἀνέμων ἢ θυέλλης ἀναφέρεσθαι τινα γεώδη ἐς τὸν ἀνω ἀέρα ἐδόξασαν καὶ ταῦτα ἐκπυρωθέντα κτλ. This passage cannot, however, reproduce the doctrine of the Stoics generally or that of Posidonius, for they explained comets as air or wind which rises into the region of ether and is there ignited.²¹ Moreover, the supplement after ἀνέμων is much too long and the introduction of a lacuna not indicated in the MSS before ἀνέμων is quite unjustified and unnecessary. It is in fact this word ἀνέμων that let Adler astray as it did the critics before him, though Adler should have known, as he apparently did not, Madvig's highly plausible explanation²² of ἀνέμων as having arisen from a false doubling of the last two letters of ἔχουσιν joined to the following phrase ἐν ᾧ. Accepting this ἐν ᾧ as the true reading in place of ἀνέμων and considering that καὶ κομήτας requires in the lacuna a noun parallel to κομήτας, I would read: πολὺν δὲ ὑφ' αὐτὴν ἔχουσιν ἐν ᾧ <λέγουσιν αὐτοὶ τοὺς πωγωνίας> διενεῖσθαι καὶ κομήτας. Plutarch is interested here not in the Stoic explanation of the origin of comets

but in drawing from Stoic statements evidence that on Stoic admission would prove the zone of "ether" to extend *below* the moon.

928 F (p. 426. 10-13):—εἰς τινὰ φύσιν καθαρὰν καὶ εἰλικρινῇ καὶ τῆς κατὰ πάθος ἀπηλλαγμένην μεταβολῆς τιθεμένοις ὑμῖν²³ καὶ κύκλον ἄγουσι δι' οὗ καὶ ἀτελευτήτου περιφορᾶς vac. 17 E, 15 B. This clause is supposed to describe the fifth essence which the Aristotelians posit (τιθεμένοις ὑμῖν) as the matter of the heavenly bodies. The phrase καθαρὰν . . . μεταβολῆς repeats and specifies πολὺ παρηλλαγμένης οὐσίας εἶναι τῶν τεττάρων in Aristotle's speech (p. 426. 5-6); and the phrase κύκλον . . . περιφορᾶς . . . must likewise specify κύκλῳ κινεῖσθαι κατὰ φύσιν there, thus giving the second of the two essential characteristics of the fifth essence. Hence ἄγουσι of the MSS is a mistake, for the participle should modify τινὰ φύσιν and be parallel to ἀπηλλαγμένην. The original then was probably ἄγουσαν,²⁴ which would have been easily corrupted to ἄγουσι under the influence of the preceding τιθεμένοις. The circularity of the motion, however, is what makes it possible for the fifth essence to move endlessly (cf. Aristotle *Physics* 265^a 25-27); and the δι' οὗ καὶ of the MSS suggest that this was what the mutilated clause expressed. Instead of changing δι' οὗ then to αἰθέριον as Dübner and Bernardakis do after Emperius, which is in itself superfluous and leaves out of account the "naturalness" of the circular motion, I should read: καὶ κύκλον ἄγουσαν δι' οὗ καὶ ἀτελευτήτου περιφορᾶς (οἷόν τε φύσιν ἔχειν).

929 A (p. 426. 22-23):—For αὐτῆς δὲ νώθειας καὶ τάχους ἀμβλύτητα F. H. Sandbach proposed²⁵ αὐγῆς δὲ ἀμβλύτητα καὶ τάχους νώθειας. Later in a private communication he remarked that "possibly

αὐγῆς νώθειας καὶ τάχους ἀμβλύτητα will stand." For τάχους ἀμβλύτητα cf. *De garulitate* 507 B (τὸ τάχος ἀμβλύνοντες); αὐγῆς νώθεια would be a possible phrase (cf. Theophrastus *Hist. plant.* 5. 9. 3: νωθεστέρα φλόξ), but here αὐτῆς is needed, for it is not sluggishness and slackness in general but "hers," the moon's, that is to be ascribed to her weakness (cf. ἀσθένειαν αὐτῆς καὶ πάθος, p. 427. 2).

930 B (p. 430. 4-6):—Lucius here says that the law of reflection (i.e., that the angle of reflection is always equal to the angle of incidence) is refuted ἐπὶ τῶν κυρτῶν κατόπτρων, ὅταν ἐμφάσεις ποιῇ μείζονας ἑαυτῶν πρὸς ἐν τὸ τῆς ὀφθαλμοῦ σημείον. This passage has caused endless trouble because interpreters (1) have failed to observe that τὸ τῆς ὀφθαλμοῦ σημείον is the *subject* of ποιῇ and have taken it to be the object of πρὸς, (2) have consequently misinterpreted the idiom μείζονας ἑαυτῶν πρὸς ἐν, and (3) have assumed that by κυρτῶν Plutarch means "convex spherical" mirrors. Since such mirrors reflect an image *smaller* than the original, these interpreters have proposed to change μείζονας to μείονας²⁶ or κυρτῶν to κοίλων²⁷ or have presumed that Plutarch simply made a gross error.²⁸ Yet, when at 937 B Plutarch refers to convex mirrors that are spherical, he calls them τὰ κυρτὰ καὶ τὰ σφαιροειδῆ; and so it is at least possible that by τῶν κυρτῶν κατόπτρων here he means "cylindrical convex mirrors."²⁹ Such a mirror produces an elongated image, as is stated by Sextus Empiricus *Pyrrh. Hypotyp.* 1. 48 in a passage in which τὰ κυρτὰ is also used without further qualification to mean *cylindrical* convex mirrors: τὰ τε κάτοπτρα παρὰ τὴν διάφορον κατασκευὴν ὅτε μὲν μικρότατα³⁰ δείκνυσιν τὰ ἐκτὸς ὑποκείμενα ὡς τὰ κοῖλα, ὅτε δ' ἐπιμήκη καὶ στενὰ ὡς τὰ κυρτὰ.³¹ Elongation of this kind is exactly what ἐμφάσεις

μείζονας ταυτῶν πρὸς ἐν in the passage of Plutarch expresses: "images that are magnified in one respect."²² The phrase τὸ τῆς ὀφθαλμοῦ σημείον, which makes no intelligible sense in the context when taken with πρὸς ἐν,²³ means "the point of incidence of the visual ray" on the mirror (cf. 936 F [p. 447. 19-20]: τὸ σημείον ἀφ' οὗ πέφυκεν ἡ ὀφθαλμοῦ ἀνακλᾶσθαι and [Aristotle] *Problema* 915^b 30-31: ὥσπερ ἐν τοῖς κατόπτροις τὸ ἄκρον τῆς εὐθείας οὐ ξυνέπεσεν ἡ ὀφθαλμοῦ φαίνεται . . .) and provides the subject required for ποιῇ. The sentence then means: "it is refuted in the case of convex (i.e., cylindrical convex) mirrors when the point of incidence of the visual ray produces images that are magnified in one respect"; and the text as it stands correctly describes the phenomenon, even though this phenomenon does not, as Plutarch supposes, impugn the law of reflection.

930 C (p. 430. 21 f.):—δσας ὁμοσε χωροῦντες ἀξιοῦσιν αὐτοῖς τοῖς ἀπὸ τῆς σελήνης ἐπὶ γῆν φερομένοις ρεύμασι τὴν ἰσότητα τῶν γωνιῶν ἀναιρεῖν πολλῶ τοῦτ' ἐκείνου πιθανώτερον εἶναι νομίζοντες. From ἀξιοῦσιν on the meaning is clear: "they maintain that they confute the equality of the angles (of incidence and reflection) by the very streams of light that flow from the moon upon the earth, for they deem this fact to be much more credible than that theory," i.e., they contend that the very fact that light is reflected from moon to earth proves that it is not always reflected at an angle equal to the angle of incidence. The verb ἀξιοῦσιν requires a subject of some kind, however, for none can be "supplied from the context"; and the word δσας, which would have to refer to the immediately preceding πάσας ἀνακλάσεις, makes no sense.²⁴ The change of δσας to ὥστε, which appears as a suggestion, apparently of Turnebus, in the Al-

dine of the Bibliothèque Nationale (RJ 94) and was printed by Stephanus in his edition of 1624 "ex variis lectionibus" is most probable. It is between this word and ὁμοσε that the missing subject was probably located,²⁵ and what that subject was is indicated by ἐνιοι δὲ in 930 E (p. 431. 17). The phrase ὁμοσε χωροῦντες cannot mean anything but "taking issue with," "closing with"; so Plutarch uses it in *Quomodo quis sent. prof. virt.* 82 B, 84 F, 85 C; *De garrulitate* 514 D; cf. *Theseus* 10. 4 F and [*Reg. et imp. apophthegm.*] 192 F and always with a dative. Since the law with which issue is here taken is a θέσις μαθηματική (cf. 930 A [p. 429. 26]), the logical and grammatical requirements of the context are best satisfied by reading ὥστ' (ἐνιοι μὲν τοῖς μαθηματικοῖς) ὁμοσε χωροῦντες ἀξιοῦσιν κτλ.:—"consequently some people take direct issue with the mathematicians and maintain. . . ."

931 F (p. 434. 21):—. . . εἰς τὸν vac. 7 E, 9 B ἐξήχθαι καὶ βέβαιον. Adler (*Diss. phil. vind.*, X, 106) rejected Wytttenbach's supplement (ἀσφαλῆ λόγον) on the ground that it is too long and, asserting that Emperius must have been right in thinking that a neuter adjective alone is to be supplied, proposed εἰς τὸ ν(ημερτές) or εἰς τὸ ν(ητρικές). Neither one of these highly poetical words is used elsewhere by Plutarch, so far as one may judge from the admittedly inadequate *Index* of Wytttenbach. There is, however, a more fundamental objection to Adler's method of filling the lacuna, namely that E has not τὸν but ἦ. This makes it highly improbable that the ν was the initial of the following adjective mistakenly connected with a preceding τὸ; it requires us to take the following βέβαιον as masculine and therefore to supply a masculine noun and adjective²⁶ which will fit the size of the

lacuna. Wytttenbach's <ἀσφαλῆ λόγον> is too long, but <σαφῆ λόγον> will satisfy all the conditions of the lacuna.

932 E-F (p. 437. 12-14):—ἀς γὰρ ἂν στρογγύλον στρογγύλῳ προσμῖξαν ἢ δέξεται τομάς ἢ παράσχῃ πανταχόσε χωροῦσαι δι' ὁμοιότητα γίγνονται κυκλοτερεῖς. Wytttenbach translates πανταχόσε χωροῦσαι "quaque versum ductae" and takes δι' ὁμοιότητα with the following words to mean "sunt omnes rotundae ob similitudinem." Prickard translates "when one round body approaches another, the lines of mutual intersection are invariably circular like the bodies themselves"; and Raingeard has "les sections ... en quelque sens qu'elles aillent se font semblablement circulaires." It is difficult to believe that Plutarch could have written πανταχόσε χωροῦσαι for "wherever the intersections are made," especially since he uses πανταχόσε χωρεῖν in this same essay in the normal sense of "to proceed in every direction."³⁷ The participial clause ought, moreover, to give the reason why the intersections are circular; and this it will do if πανταχόσε χωροῦσαι δι' ὁμοιότητα be taken together as a reference to the uniform curvature of all segments of a spherical surface. Uniformity in every direction is the distinguishing characteristic of the sphere (cf. [Aristotle] *De Xenophane* 977^b 1: πάντα δ' ὁμοῖον ὄντα σφαιροειδῆ εἶναι), and the segments of any one circle are ὁμοία because they have τὴν ὁμοίαν κλίσιν (cf. Hero *Definitiones* 118 = Heronis Alexandrini *Opera*, IV, 74. 9-13 [Heiberg]). I therefore take Plutarch's sentence to mean "whenever two round bodies come into contact, the lines by which either intersects the other turn out to be circular since they have everywhere a uniform tendency," i.e., they are always arcs of a circle because the degree of curvature of each of the two surfaces is

at every point similar (cf. *The Review of Metaphysics*, IV [1951], 403, n. 25).

932 F (p. 437. 18):—Paton in *Classical Review*, XXVI (1912), 269 proposed to change ἥλιος δὲ καὶ σελήνη of the MSS to ἢ δὲ τῆς σελήνης, and this change is accepted by Prickard in *Selected Essays of Plutarch*, II, 284, n. 1. Such a change is certainly wrong, however, for (1) to omit ἥλιος here would be to omit the basis for the explanation of the solar eclipse in the following lines, (2) it is the moon herself and not her shadow that is wanted to explain the lunar eclipse, and (3) the text of the MSS is guaranteed by Cleomedes, 2. 6. 116 (p. 210. 6-19 [Ziegler]) and 117 (p. 212. 1-12): δεύτερον . . . ὁράται αὐτῆς (scil. τῆς σελήνης) τὰ πρὸς ἀνατολὴν τετραμμένα πρῶτα ἀφανιζόμενα διὰ τὸ ἀπαντᾶν αὐτὴν τῇ σκιᾷ, αὐτὴν μὲν ὥς πρὸς ἀνατολὴν ἔχουσαν τὴν ὁρμὴν κατὰ τὴν ἐναντίαν τῷ οὐρανῷ κίνησιν, τῆς δὲ σκιᾶς ὥς ἀπ' ἀνατολῆς ἐπὶ δύσιν ἀεὶ φερομένης. For the solar eclipse cf. Cleomedes, 2. 5. 113-14 (p. 204. 27 ff.). This disposes also of the statement of Prickard in *Plutarch on the Face of the Moon* (1911), p. 10 that the view expressed in this section "may be one hastily formed by the Author on a matter where confusion is easy; it can hardly have reached him from a professional source." The westward motion of the earth's shadow is, of course, the diurnal motion, the eastward motion of sun and moon is the annual and monthly motion of these bodies along the ecliptic, concerning which cf. Geminus, chapter 12, especially 5-13 (pp. 138-40 [Manitius]). As the moon falls back each day, she meets the earth's shadow moving westwards, and her eastern edge enters the shadow first; and, as she overtakes the sun (both falling back eastwards), her eastern edge overlaps the sun's western edge.

933 E (p. 439. 17-20):—Prickard in *Plutarch on the Face of the Moon* (1911), p. 11 observed that the period of 465 ecliptic full moons here mentioned does not correspond to any multiple of the so-called "Saros," the period of 223 lunations known to the Greeks from Oriental astronomers,³⁸ and that "it does not seem to be mentioned elsewhere." The 404 cycles of six months and 61 of five months mentioned by Plutarch give a total of 2729 synodic months. Now, this is one-half of the 5458 synodic months which according to Kidinnu and Hipparchus equal 5923 draconitic months.³⁹ Moreover, Plutarch's 404 cycles of six months and 61 of five months are just one-half of the 808 ecliptic cycles of six months and 122 of five months mentioned by the anonymous commentator of Ptolemy *Syntaxis* 4. 2 in *Catalogus codicum astrologorum graecorum* VIII, p. 126. 25-27. Professor O. Neuegebauer called my attention to this and to the article of A. Rome, *Annales de la Société scientifique de Bruxelles*, LI (1931), Série A, 94-103, in which it is argued that the Babylonians first formulated the notion of a cycle of possible eclipses coming at intervals of six and five lunations and that this cycle was adopted by Hipparchus. Rome apparently overlooked this passage of Plutarch with its reference to a cycle just one-half that of the Hipparchian-Babylonian cycle. He refers, however, to the statement of Hero of Alexandria⁴⁰ that lunar eclipses occur at intervals of five and of six months. That they can occur at intervals of five months is proved by Ptolemy,⁴¹ and it should be noticed that Pliny⁴² ascribes to Hipparchus the discovery that they do sometimes so occur.

935 A (p. 443. 4-6):—οὐ διακαοῦσι οἷδὲ μαυικοῦ πυρὸς ἀλλὰ νοτεροῦ καὶ ἀβλαβοῦς καὶ κατὰ φύσιν ἔχοντος. At 940 B *infra* (p.

457. 1-3) it is said that the moon moistens and chills the heat of the sun that falls upon her; and τὸ ὑγρὸν or τὸ νοτερόν is regarded as the food of fire (cf. *Quaest. conviv.* 687 A, 696 B; *De primo frigido* 954 E). It is strange, however, to have πῦρ νοτερόν identified with "fire in its natural state"; and it may be that Plutarch wrote not νοτεροῦ but νοεροῦ, intending thus to turn against the Stoics their own doctrine of πῦρ τεχνικόν or νοερόν (cf. *De communibus notitiis* 1084 E; *Non posse suaviter vivi* 1107 B; *SVF*, I, 34, Frag. 120 and II, Frag. 774).

936 A (p. 445. 14-16):—πολλαπλασίους αἱ τοῦ φωτὸς ἀποστάσεις τῶν σωμάτων τὰς σκιάς ποιοῦσι. Purser suggested⁴³ that ἀποστάσεις be read instead of ἀποστάσεις, but ἀποστάσεις is guaranteed by ἡ ἀπόστασις τοῦ φωτὸς in line 19 below and by the τὸ μέγιστον ἀπέχοντα διάστημα which precedes that phrase. The latter proves, moreover, that by ἀπόστασις Plutarch meant not "angular distance," as Prickard had suggested,⁴⁴ or "obliquam distantiam," as Wytttenbach translated it, but simply linear remoteness; and consequently he is guilty either of an error or of a purposeful sophism.⁴⁵

Adler maintains⁴⁶ that Plutarch's argument in 936 A is to be found in Cleomedes, p. 192. 8-13 (Ziegler). This is erroneous. Cleomedes there makes the point only that a small object can obscure or blot out from sight a much larger one, and this does not involve the matter of shadows at all. In fact, had Cleomedes used the example of the Lemnian heifer to illustrate his point, as Plutarch does and he does not, he would have had to say that the Lemnian heifer could blot out the view of Mt. Athos, not, as Plutarch does, that Mt. Athos casts a shadow over the Lemnian heifer.

937 E-F (p. 450. 4-8):—τοῖς μὲν γὰρ ὑπὸ τὴν σελήνην οἰκοῦσιν ὥσπερ Ταντάλοις ὑπὲρ κεφαλῆς ἐπικρέμασθαι⁴⁷ φασὶ τοὺς δ' οἰκοῦντας αὖ πάλιν ἐπ' αὐτῆς ὥσπερ Ἰξίονας ἐνδεδεμένους ῥύμῃ τόσῃ vac. 43 E, 30 B. The lacuna is a single full line in E but is divided between two lines in B; hence it is probable that the scribe of B here underestimated the space necessary for the number of letters omitted. Wyttenebach's supplement, ῥύμῃ τοσ(αύτῃ δινεῖσθαι) is much too short, nor do the supplements of Bernardakis, Adler, and Purser fill the space fully.⁴⁸ As the first part of the sentence concerning those who live under the moon is a clear reminiscence of 923 C (p. 411. 13-15), it is probable that the second part, in which the lacuna stands, was a reminiscence of the lines that follow in that passage (p. 411. 15-19). Moreover, the sentence which follows the lacuna, καίτοι μίαν οὐ κινεῖται κίνησιν . . . , shows that in the lacuna there must have been a reference to a *single* motion, and that could be only the motion of rotation. I therefore would fill the lacuna as follows: ῥύμῃ τοσ(αύτῃ, τῆς καταφορᾶς κωλύειν τὴν κύκλῳ περιδίνεσιν.). For ῥύμῃ used of the velocity of the moon cf. *De sera numinis vindicta* 566 E, and for Ixion used in a cosmological argument cf. Aristotle *De caelo* 284^a 34-35.

937 F (p. 450. 10-14):—ἅμα μῆκος ἐπὶ τοῦ ζωδιακοῦ καὶ πλάτος φερομένη (so E; ἐπιφερομένη, B, Aldine, Basiliensis) καὶ βάθος. ὦν τὴν μὲν περιδρομὴν τὴν δ' ἑλικά τὴν δ' οὐκ οἶδα πῶς ἀνωμαλίαν ὀνομάζουσιν οἱ μαθηματικοί, καίπερ οὐδεμίαν ὁμαλὴν οὐδὲ τεταγμένην ταῖς ἀποκαταστάσεσιν ὁρῶντες ἔχουσιν (so B; ἐχούσαις, E).

The variant, ἐπιφερομένη, in B suggests that φερομένη in E is an abbreviation of the true reading. Now by movement in longitude is meant that motion in the ecliptic which is contrary to the diurnal

motion, i.e., the monthly course of the moon,⁴⁹ not the motion which Cleomedes after Berossus calls τὴν κατὰ μῆκος ἣν σὺν τῷ κόσμῳ κινεῖται.⁵⁰ To make this clear Plutarch probably avoided the simple φερομένη, which would have left his meaning uncertain; but he certainly would not have used ἐπιφερομένη, the normal meaning of which should be not "moving against the signs" but the opposite, "moving up on them from behind."⁵¹ It is most probable, then, that the true reading is ἀντιφερομένη, the regular technical expression for the movement of the planets in longitude,⁵² so that I would read ἅμα μῆκος ἐπὶ τοῦ ζωδιακοῦ⁵³ καὶ πλάτος ἀντιφερομένη. That ἀντιφερομένη, expressing motion against the signs, can be used of both motion in longitude and motion in latitude is to be seen from Geminus 12. 20-21 (pp. 142. 21-144. 4 [Manitius]) and 24 (p. 144. 14-18), and Ptolemy *Syntaxis* 1. 8 (I, 28. 14-19 [Heiberg]).

For περιδρομή used of the "revolution" of the sun and moon cf. Ptolemy *Syntaxis* 4. 2 (I, 273. 7 [Heiberg]).

As for the term ἑλίξ, Plutarch in *Phocion* 2 (742 C-D) says that οἱ μαθηματικοί use it to describe the sun's motion along the ecliptic, and in *De genio Socratis* 590 E he employs it in describing the course of the mythical islands which are the planets and the sun and moon. For us the ultimate source of the term is Plato's *Timaeus* 39 A-B, although it may have been common in astronomical language earlier.⁵⁴ Norlind⁵⁵ has suggested that Plutarch may have erroneously borrowed the term from Eudoxus' theory where it would have described the motion of the planets in latitude. Eudoxus, however, explained the motion in latitude by means of a "hippopede" rather than by means of a ἑλίξ;⁵⁶ cf. further for the connection of the term ἑλίξ with motion in latitude Theon of Smyrna, p. 179. 4-6 (Hiller)

and especially pp. 200. 23—201. 6 (from Eudemus) and pp. 203. 15—204. 21.

As to the "anomaly" by which it is here said motion in depth or altitude is meant, this is the so-called "first anomaly" for which cf. Ptolemy *Syntaxis* 4. 5 (I, 294. 4—23 [Heiberg]); Theon of Smyrna, p. 135. 4—11 (Hiller); and Geminus 9. 13 (p. 128. 16—18 [Manitius]).

The following words, which constitute the concluding clause, have been altered in various ways by almost all editors since Wytttenbach and by Xylander and Amyot before him. The text as it stands, however, with B's *ἔχουσιν* is right and is guaranteed by 939 A—B *infra*, for what Lamprias says there is meant to *correct* the statement which Theon makes here. Theon's point is that he does not understand why astronomers give to one specific motion of the moon the name "irregularity" which really is equally descriptive of all her movements in general. Adler, who would read *οὐδεμίαν* <ὁμοίως> *ὁμαλήν* . . . *οὐσαν*,⁵⁷ thereby like all who "emend" the clause inverting its meaning, cites for the phrase *ὁμαλήν οὐδέ τεταγμένην*, which he nevertheless would preserve, Bake, *Posidonii Rhodii reliquiae*, p. 61: *ὁμαλὰς καὶ τεταγμένας κινήσεις τῶν ἀστρον*.⁵⁸ The implication which he intends is his usual thesis that Plutarch's source is Posidonius. One might also cite for this collocation of words, however, Eudemus *apud* Theon of Smyrna, p. 200. 13—15; Theon, p. 184. 25 f.; and for the opposite Adrastus *apud* Theon, p. 149. 3 and p. 152. 1—2 (Hiller): *δοκεῖ δ' ἡμῖν τὰ πλανώμενα πάντα μὲν ἀνωμαλίας ἔνια δὲ καὶ ἀταξίας μετέχειν*. What is more important, however, are the facts in support of Theon's statement concerning the motions of the moon, as the MSS give that statement,⁵⁹ expressed not only by Plutarch in *Quaest. roman.* 269 D (quoted by Raingeard *ad loc.*) but also by Ptolemy *Syntaxis* 4. 2 (I, 269. 6—21

[Heiberg]): *ἐπεὶ τοίνυν ἀνωμάλως μὲν ἡ σελήνη φαίνεται κινουμένη κατὰ τε μῆκος καὶ πλάτος καὶ μὴ ἰσοχρονίως μήτε τὸν διὰ μέσων τῶν ζωδίων κύκλον ἀεὶ διερχομένη μήτε πρὸς τὴν κατὰ τὸ πλάτος αὐτοῦ πάροδον ἀποκαθισταμένη, χωρὶς δὲ τῆς εὐρέσεως τοῦ τῆς ἀνωμαλίας αὐτῆς ἀποκαταστατικοῦ χρόνου κατὰ τὸ ἀναγκαῖον οὐδὲ τὰς τῶν ἄλλων περιόδους λαβεῖν οἶόν τ' ἂν γένοιτο, κτλ.*, i.e., "irregularity" appears to be applicable to the moon's motion in longitude and latitude as well as to her motion in altitude, the specific "anomaly," just as Theon in our passage says.⁶⁰

940 B—C (p. 457. 10—15):—*καὶ σύστομοι μὲν ἄνθρωποι καὶ ὀσμάϊς τρεφόμενοι μὴ ἔστωσαν εἰ μὴ . . . vac. 8 E, 9 B . . . μὴ δοκοῦσι. τὴν τε ἄμμονος ἡμῖν αὐτὸς ἐξηγεῖτο δύναμιν ἡμίξατο μὲν Ἡσίοδος εἰπών. οὐδ' ὅσον ἐν μαλάχῃ τε καὶ ἀσφοδέλῳ μέγ' ὄνειρα. ἐργῶ δὲ ἐμφανῇ παρέσχετο Ἐπιμενίδης διδάξας κτλ.* So both MSS, E and B, give this passage, which is a response to 938 C: *τὴν μὲν γὰρ Ἰνδικὴν ῥίζαν ἦν φησι Μεγασθένης τοῖς <μήτ' ἐσθιοντας>⁶¹ μήτε πίνοντας ἄλλ' εὐστόμοις ὄντας ὑποτίφειν καὶ θυμῶν καὶ τρέφεσθαι τῇ ὁσμῇ κτλ.* The *εὐστόμοις* in the latter passage is printed *ἀστόμοις* in the Basiliensis; and this correction is guaranteed by Pliny *NH* 7. 2. 25 and by Strabo 2. 1. 9 (c. 70) and 15. 1. 57 (c. 711).⁶² In our present passage, 940 B, *σύστομοι* ought then to be changed to *ἀστομοι* also; and this correction was made by a corrector of the Aldine in the Bibliothèque Nationale (R.J. 94) and was accepted by Reiske, Wytttenbach, Hutten, and others, including Maxmilian Adler. For the rest, Adler treated the passage three times. At first⁶³ he proposed for the words *εἰ μὴ . . . ἄμμονος* the correction *εἰ <καὶ Μεγασθένης> δοκοῦσιν <εἶναι>*. *ἦν δὲ ἄμμεως κτλ.* Later⁶⁴ he withdrew *ἄμμεως* and proposed *ἀλίμου* instead. Finally⁶⁵ he questioned his own suggestion *εἰ <καὶ Μεγασθένης> δοκοῦσιν <εἶναι>* and pro-

posed instead to read *εἰ* <Θέωνι γ' εἶναι> *μὴ* δοκοῦσιν. τὴν δ' ἄλιμον ἡμῖν αὐτὸς ἐξηγεῖτο δύναμιν, <ἦν> ἥνιξάτο μὲν κτλ., taking *διδάξας* to agree not with Epimenides but with Theon, who is supposed then at some time in the past while interpreting the verse of Hesiod to have spoken of the *ἄλιμος δύναμις*. By this new reconstruction he intended to avoid imputing to Megasthenes the self-contradiction which, it was thought,⁶⁶ his earlier supplement of the lacuna involved. It is impossible, however, to believe that Lamprias would refer to Theon in the third person here, for he is addressing him directly at this point (cf. 940 A [p. 456. 16-17 and 22]); and so <Θέωνι γ' εἶναι> cannot be right nor can αὐτὸς ἐξηγεῖτο have Theon for subject. Adler was right in the first place in seeing a reference to Megasthenes in the lacuna and later in detecting some form of *ἄλιμον* in the *ἄμματος* of the MSS,⁶⁷ although his emendations in all cases paid too little heed to the data of the MSS. What Plutarch probably wrote, I think, is *καὶ ἄστομοι μὲν ἄνθρωποι καὶ ὄσμαϊς τρεφόμενοι μὴ ἔστωσαν οἷον*⁶⁸ *Με<γασθένης γ' εἶ>ναι*⁶⁹ *δοκοῦσι.*⁷⁰ *τὴν δ' ἄλιμον, ἥς*⁷¹ *ἡμῖν αὐτὸς ἐξηγεῖτο δύναμιν κτλ.* The passage meant, then: "Let there not be mouthless men nourished by odors who Megasthenes thinks do exist; yet the Hungerbane, the virtue of which he was himself trying to explain to us, Hesiod hinted at when he said

Nor what great profit mallow has or squill⁷² and Epimenides made manifest in fact when he showed that . . ." etc.

This translation should show that there is no question here of a "second citation of Megasthenes" in addition to that in 938 C or of a consequent self-contradiction in what Megasthenes said about the "Indian root" in that earlier passage and what he is supposed here to have said

about the "Hungerbane." This passage does not say or intend to say that Megasthenes mentioned the *ἄλιμος* at all; and what it attributes to him, the opinion that there exist mouthless men who are nourished by odors, is exactly what he is cited for in 938 C. Lamprias himself on his own authority here adds that Megasthenes' story was really an attempt to interpret⁷³ the nature of the *ἄλιμος* at which Hesiod had hinted⁷⁴ and of which Epimenides had given a practical demonstration, so that even if Megasthenes' story be rejected as untrue the implication that it has for the possibility of life on the moon is not impaired.

941 A (p. 459. 7-11):—*ἐγὼ μὲν οὖν ὑποκριτὴς εἰμι, πρότερον δ' αὐτοῦ φράσω τὸν ποιητὴν ἡμῖν εἰ μὴ τι κωλύει καθ' Ὅμηρον ἀρξάμενον. Ὡγγύη τις κτλ.* Such is the reading of both MSS.⁷⁵ The "emendations" of this passage⁷⁶ are motivated by the assumption that Sulla here promises to name the author of the myth, something which he does not do either before he tells it or afterwards. If the reading of the MSS be kept, no such promise is made, however. The words, *φράσω τὸν ποιητὴν . . . ἀρξάμενον*, mean simply: "I shall indicate that the author began";⁷⁷ and the whole sentence should then be translated: "Well, I am but the actor of the piece, but first I shall say that its author began for our sake—if there be no objection—with a quotation from Homer. . . ." The *ἔφη* in 941 C does not imply, as Hirzel supposed,⁷⁸ that a name has already been given to the author; and in fact it is psychologically right that Sulla should never give a name to the mysterious stranger from across the great ocean who told him the story.⁷⁹ Soury⁸⁰ says that the stranger was Demetrius of Tarsus; but, though Demetrius in the *De defectu oraculorum* 420 A uses words that are

almost identical with those in this myth concerning Cronus and his isle, the grammarian of Tarsus cannot have been meant to be the stranger from the other side of the Atlantic who spent thirty years as a servitor of the god.⁸¹ It would be palaeographically easy to read αὐτὸν instead of αὐτοῦ before φράσω in line 8, rendering "the author himself" instead of "its author," and ὑμῖν in line 9,⁸² which would then be taken with φράσω, instead of ἡμῖν, which has to be taken with ἀρξάμενον; but neither of these changes is necessary, and ἡμῖν has a special subtlety and gives special point to the apology, εἰ μὴ τι κωλύει, for it might seem incredible that the stranger from across the Atlantic should have a line of Homer so appropriate to his story.

941 A (p. 459. 15-19):—ὦν ἐν μιᾷ τὸν Κρόνον οἱ βάρβαροι καθεῖρχθαι μυθολογοῦσιν ὑπὸ τοῦ Διός, τὸν δ' ὡς υἱὸν ἔχοντα φρουρὸν τῶν τε νήσων ἐκείνων καὶ τῆς θαλάττης . . . παρακάτω κεῖσθαι. This, the reading of both MSS, E and B, is admittedly corrupt in the phrase, τὸν δ' ὡς υἱὸν ἔχοντα φρουρὸν, and in the last two words, παρακάτω κεῖσθαι. These last two words were correctly emended to παρακατωκίσθαι by Apelt,⁸³ a reading which is in fact implied by Amyot's version, "est là colloqué." The former clause was changed to τὸν δὲ Βριάρεων ἔχοντα φρουρὰν by Kaltwasser,⁸⁴ and it would seem that some such emendation is demanded by the remarkable parallel in *De defectu oraculorum* 420 A.⁸⁵ Nevertheless, it is palaeographically improbable that Βριάρεων was corrupted to ὡς υἱὸν. On this score Apelt's change to τὸν δ' Ὀγυγον ἔχοντα φρουρὰν⁸⁶ is certainly preferable. Moreover, Apelt and von Arnim claim the support of Amyot's version for Ὀγυγον. In making this claim, however, they appear to have trusted to a note of Wyttenbach's⁸⁷ which misrepre-

sents that version. Amyot in fact wrote: "Et pour garde tant de luy que des Isles, et de toute la mer adiacente, qui se nomme Saturnienne, le Geant Ogygius ou Briareus est là colloqué. ..." In short, he translated both a form of Ὀγυγ- and a form of Βριάρεως, and he did not have in his text—or at least he disregarded—anything like ὡς υἱὸν.⁸⁸ It seems to me most reasonable, therefore, to suppose that Plutarch wrote τὸν δ' Ὀγύγιον (Βριάρεων) ἔχοντα φρουρὰν . . . παρακατωκίσθαι ("and the antique Briareus, holding watch and ward . . . has been settled close beside him"). For the epithet Ὀγύγιος applied to Briareus, which Amyot must have mistakenly taken to be an alternative name of the giant, cf. Parthenius, Frag. 21 (Diehl) = Frag. 31 (Martin, *Mythographi graeci*, II¹, Suppl., p. 31): ἀρχαίου Βριάρεω.

The verbal similarity of μιᾶν εἶναι νῆσον ἐν ᾗ τὸν Κρόνον καθεῖρχθαι in *De defectu oraculorum* 420 A (cf. n. 85 *infra*) guarantees ὦν ἐν μιᾷ at the beginning of the present sentence against such attempts as that of Böckh to read ἐν δὲ τῇ Ὀγυγίᾳ or ἐν δὲ τῇ πρώτῃ and so to avoid the contradiction that, whereas Cronus is here said to be on one of the three islands west of Ogygia, in 941 D-E the deputation going from West to East passes the outlying islands and then reaches the isle of Cronus, which therefore seems to be Ogygia. Hamilton⁸⁹ is probably right in saying that the reason for this discrepancy is "that Plutarch has muddled himself by the really superfluous introduction of Ogygia in imitation of the Platonic scheme" (i.e., in *Timaeus* 24 A). The contradiction is made less apparent, perhaps purposely, by the vagueness with which the goal of the voyage is described in 941 E.⁹⁰

942 A (p. 462. 10-13):—εἶναι δ' ἀνάστασιν τὰ τιτανικὰ πάθη καὶ κινήματα τῆς

ψυχῆς ἐν αὐτῷ παντάπασιν ὁ ὕπνος vac. 10 E, 13 B καὶ γένηται τὸ βασιλικὸν καὶ θεῖον αὐτὸ καθ' ἑαυτὸ καθαρὸν καὶ ἀκήρατον. These words follow the statement that all that Zeus premeditates Cronus sees in his dreams. So far as I know, none of the many scholars who have "emended" this passage⁹² has recognized that the simplest and most probable correction of the first part of the sentence is to change ἀνάστασιν to ἀνάτασιν. This word became a common technical term in Neoplatonism and occurs in connection with the interpretation of the myth of Zeus, Cronus, and Uranus (cf. Proclus *In Platonis Cratylum*, p. 61. 26-30 [Pasquali]). Proclus defines ἔγερσις as ἀνάτασις ὑπὸ τῆς ψυχῆς (*In Platonis Rem Publicam*, I, 181. 23-24 [Kroll]); and Plutarch uses the word in the sense of "intensity" or "rigidity" in *Marius*, chapter 6 (408 E) and in *Alexander*, chapter 4 (666 B), in the sense of "rigor" in *Marcus Cato*, chapter 16 (345 E). The scribal error of ἀνάστασις for ἀνάτασις is quite common, as might be expected;⁹³ and we may reasonably suppose therefore that the meaningless ἀνάστασιν in our sentence is just another example of this error.

As for the remainder of the sentence, it is certain that the concluding words, τὸ βασιλικὸν καὶ θεῖον αὐτὸ καθ' ἑαυτὸ καθαρὸν καὶ ἀκήρατον, come ultimately from Plato's *Cratylus* 396 B where Κρόνος as the father of Zeus is etymologized: κόρον γὰρ σημαίνει οὐ παῖδα ἀλλὰ τὸ καθαρὸν αὐτοῦ καὶ ἀκήρατον τοῦ νοῦ.⁹⁴ The state of the royal and divine element so described is the opposite of τὰ τιτανικὰ πάθη καὶ κινήματα⁹⁵ or of the state induced by them. Moreover, it is not to be supposed that the servitors of Cronus would be aware of his dreams while his mind is entirely withdrawn and by itself. These considerations and the retention of εἶναι require that the missing conjunction which must

have governed the subjunctive, γένηται, should not govern the first part of the sentence but should somehow have expressed a contrast to it. This conjunction must have come at the earliest after ψυχῆς and at the latest before ὁ ὕπνος,⁹⁶ and the most probable place for it palaeographically is after ψυχῆς where ἔως, which would satisfy the sense, might easily have dropped out. Then the required ἀν is probably to be found in ἐν.⁹⁷ The words after the lacuna, καὶ γένηται, show that there must have been in the lacuna a verb in the subjunctive of which ὁ ὕπνος is the subject and that this verb must have had an object, for it is impossible to identify ὕπνος with τὸ βασιλικὸν καὶ θεῖον, as Herwerden sought to do by suppressing the lacuna and καί.⁹⁸ It would be possible to fill the lacuna with κατασβεννύη and to provide the necessary object for this verb by changing αὐτῷ to αὐτά; but it was probably the form αὐτῷ itself that induced the corruption of ἀν to ἐν. The object of the missing verb is more probably concealed in παντάπασιν. This, then, I would change to πάλιν ἀνάπαυσιν;⁹⁹ and I would restore in the lacuna the verb καταστήσῃ. The changes involved are: εἶναι δ' ἀνάτασιν . . . τῆς ψυχῆς (ἔως) ἀν αὐτῷ πάλιν ἀνάπαυσιν ὁ ὕπνος (καταστήσῃ) κτλ., and the sentence would be translated: "and the titanic affections and motions of his soul make him rigidly tense until sleep restores his repose once more and the royal and divine element is all by itself, pure and unalloyed."

942 F (p. 464. 22):—τίς δ' οὗτός ἐστιν, ὦ Σύλλα; The MSS have a comma, not a mark of interrogation, after these words, although the following μὴ περὶ τούτων ἔργα show that they must be an independent question. Xylander, taking them to be a question of Lamprias' addressed to Sulla and so an interruption of the myth, in-

troduced "aiebam" in his version after the question; and most editors and translators, whether they add *ἔφη* or not, assume that the words are a question spoken by Lamprias.¹⁰⁰ Amyot, however, took it to be a rhetorical question of the stranger's addressed to Sulla in the unbroken report now being given by Sulla; and this is certainly right. Sulla has switched from indirect discourse to a direct report of the stranger's account (942 D [p. 463. 16]) and continues this direct quotation to the end (945 D [p. 472. 22]: ταῦτ', εἶπεν ὁ Σύλλας, ἐγὼ μὲν ἤκουσα τοῦ ξένου διεξιόντος). If *τίς . . . ὦ Σύλλα*; here were an interruption by Lamprias, all the rest of the myth would be Sulla's own statement given on his own authority (cf. the following μέλλω γάρ αὐτὸς διηγεῖσθαι), which is impossible, as the unannounced shift of speakers implied by the punctuation *τίς δ' οὗτός ἐστιν*; ὦ Σύλλα, μὴ περὶ τούτων ἔρη is improbable.

943 B (p. 465. 15-17):—καὶ ὁ μὲν (i.e., the death that separates soul from body) ἐστὶν ἐν τῇ τῆς Δήμητρος vac. 20 E, 26 B ἐν αὐτῇ τελεῖν καὶ τοὺς νεκροὺς Ἀθηναῖοι Δημητρείους ὠνόμαζον τὸ παλαιὸν δὲ ἐν τῇ σελήνῃ τῆς Φερσεφόνης. . . . Kaltwasser's correction of the last clause, <ὁ> δὲ ἐν τῇ σελήνῃ κτλ., is patently correct;¹⁰¹ and the parallelism supports Madvig's correction of the first clause: καὶ ὁ μὲν ἐστὶν ἐν τῇ <γῇ> τῆς Δήμητρος. As to the lacuna, a sentence in Fragment VI, περὶ ψυχῆς (Vol. VII, p. 23. 6-7 [Bernardakis]), which runs διὸ καὶ τὸ ῥῆμα τῷ ῥήματι καὶ τὸ ἔργον τῷ ἔργῳ τοῦ τελευτᾶν καὶ τελεῖσθαι προσέειπε, might lead one to suppose that it contained words which in the context would constitute a play upon *τελευτᾶν* and *τελεῖν* in the sense of initiation. All the attempts to reconstitute the text that I have seen do proceed from this assumption; but they all overlook the fact that *τελεῖν* in the

ritual sense is active only, "to initiate," not passive, and that, as the fragment quoted above shows, *τελευτᾶν* could be equated only with *τελεῖσθαι*. Moreover, *Non posse suaviter vivi* 1105 D, *τέλεον ὁσως ἀγαθὸν ἡγούνται τὴν τελευτὴν*, shows that Plutarch's etymological punning upon *τελευτᾶν* was not restricted to a play upon "initiation." The use of *Δημήτριοι* to which Plutarch here refers is nowhere else mentioned so far as I know and must have been unusual, as he himself says that it was an ancient usage. I suspect that in the preceding words also he referred to a rare turn of speech such as τὸν βίον Δήμητρι τελεῖν, to which Pindar's ψυχὰν Ἀἰδῶ τελέων (*Isthmian* 1. 68) would have been a parallel;¹⁰² and I would therefore reconstruct the passage as follows: . . . ἐν τῇ <γῇ> τῆς Δήμητρος <(διὸ τελευτᾶν λέγεται τὸν βίον αὐτῇ τελεῖν καὶ . . . τὸ παλαιὸν) <ὁ> δ' ἐν τῇ σελήνῃ κτλ.

943 E (p. 467. 14 ff.):— . . . τῷ αἰθέρι λέγουσι τὴν σελήνην ἀνακεκραμένην κτλ. Raingeard in his note on this passage says that the subject of *λέγουσι* is "the demons," i.e., the attendants of Cronus from whom the stranger heard the story which he told to Sulla and which Sulla is here quoting directly.¹⁰³ Specious support for this interpretation might be gained by reference to the use of *καλοῦσι* in 944 C (p. 469. 2) *infra*. Nevertheless, the attendants of Cronus certainly did not cite Xenocrates and refer to Plato, as the stranger does a few lines below (943 F); and those references show that Plutarch did not consistently think of everything in the stranger's remarks to Sulla as having been told the stranger by "the demons."¹⁰⁴ Moreover, if the grammar were taken with pedantic strictness, the subject of *λέγουσι* here would have to be the same as that of *ἐφορῶσι* above (p. 467. 11), i.e., the disembodied souls on the moon; but

this ridiculous consequence Plutarch could not even have noticed, much less intended. The subject of λέγουσι is therefore best taken to be the human authors of this doctrine, to whom is attributed also by its expression in indirect discourse the Stoic dogma of the following sentence.¹⁰⁶ So the subject of καλοῦσι in 944 C *infra* also is probably neither the disembodied spirits on the moon nor even the attendants of Cronus but quite generally "people."¹⁰⁶

943 F-944 A (pp. 467. 26-468. 5):—ὁ δὲ Ξενοκράτης τὰ μὲν ἄστρα καὶ τὸν ἥλιον ἐκ πυρός φησι καὶ τοῦ πρώτου πυκνοῦ συγκεῖσθαι, τὴν δὲ σελήνην ἐκ τοῦ δευτέρου πυκνοῦ καὶ τοῦ ἰδίου ἀέρος τὴν δὲ γῆν ἐξ ὕδατος καὶ πυρός καὶ τοῦ τρίτου τῶν πυκνῶν. This text is printed without any recorded variant by Reiske, Wytttenbach, Hutten, and Bernardakis; and Heinze so reproduces it in the passage which he prints as Fragment 56 of Xenocrates. It is the reading of B and of the Aldine and Basiliensis; but the better of our two MSS, E, has instead τὴν δὲ γῆν ἐξ ὕδατος καὶ ἀέρος καὶ τοῦ τρίτου τῶν πυκνῶν.¹⁰⁷ Now it appears that Xenocrates classified fire, air, and water as three different degrees of τὸ μαρόν (subtility) and contrasted them as such to three degrees of τὸ πυκνόν (density);¹⁰⁸ and it is highly improbable that, having declared the stars, sun, and moon to be composed each of one degree of μαρόν and one degree of πυκνόν, he made the earth a compound of the third degree of πυκνόν and two degrees of μαρόν, whether the third and the first (fire) or the third and the second (air). Even if there were no disagreement at this very point in the MSS, the logic of the case and Xenocrates' well-known penchant for strict schematism would suggest that he constructed earth of the third degree of μαρόν plus the third degree of πυκνόν as he

constructed the moon by combining the second degree of both and the sun and stars the first. The disagreement of the MSS supports this suggestion, for καὶ ἀέρος in E was probably only a false repetition of ἀέρος above, which the scribe of B "corrected" to καὶ πυρός.¹⁰⁹ The only other possibility is to suppose that Plutarch really wrote τὴν δὲ γῆν ἐξ ὕδατος καὶ ἀέρος καὶ πυρός καὶ τοῦ τρίτου τῶν πυκνῶν, i.e., to suppose that Xenocrates included all four "simple bodies" in the composition of the earth. That would not only involve the hypothesis that the scribe of E omitted one pair of words and the scribe of B another;¹¹⁰ it would also make it difficult to believe that Xenocrates constructed the moon of air and the second degree of density alone, and in order to get a semblance of order into the scheme we should have to emend further to τὴν δὲ σελήνην ἐκ τοῦ δευτέρου πυκνοῦ καὶ τοῦ ἰδίου ἀέρος <καὶ πυρός>. It is much more reasonable to adopt the simpler remedy of excising E's καὶ ἀέρος and B's καὶ πυρός and to read τὴν δὲ γῆν ἐξ ὕδατος καὶ τοῦ τρίτου τῶν πυκνῶν.

944 A (p. 468. 8-10):—After having said that the breadth or magnitude of the moon is not what the geometers say but many times greater, Sulla (still quoting the stranger) proceeds: καταμετρεῖ δὲ τὴν σκιάν τῆς γῆς ὀλιγάκις τοῖς ἑαυτῆς (E; ἑαυτοῦ, B) μεγέθεσιν οὐχ ὑπὸ σμικρότητος ἀλλὰ θερμ vac. 7 ἐπείγει (E; θερμότητος ἐπείγει, B) τὴν κίνησιν ὅπως ταχὺ διεκπερᾷ τὸν σκοτώδη τόπον κτλ. Plutarch here makes a "mythical correction" of the astronomical calculations which he had given at 923 A-B and 932 B and also gives a mythical explanation of the accelerated motion of which he had spoken in 933 B. As for the text, B's ἑαυτοῦ is certainly a mistake (for the subject of καταμετρεῖ must be the moon and not her εὖρος καὶ μέγεθος, since

one could not speak of τοῖς τοῦ εἵρους μεγέθεσιν) and B's θερμότητος is a mistaken "emendation" suggested by the preceding σμικρότητος. Von Arnim¹¹¹ was almost certainly right in restoring the last part of the sentence as ἀλλὰ θερμ(ότερον) ἐπείγει κτλ.¹¹² He was as certainly wrong, however, in his violent treatment of the rest of the sentence. ὀλιγάκις is to be taken with καταμετρεῖ in the sense "measures off but a few times";¹¹³ and consequently von Arnim's change of ὀλιγάκις to ὀλίγοις is unnecessary and Prickard's change of τοῖς ἐαυτῆς μεγέθεσιν to τρισὶν ἐαυτῆς μεγέθεσιν is impossible.¹¹⁴ Prickard is right, however, in taking ὑπὸ σμικρότητος—at least in his two translations—to refer to the diameter of the earth's shadow and not, as do most interpreters, to the size of the moon herself.¹¹⁵ Even this does not save the logic of Plutarch's argument, however, for on this or any other interpretation his words clearly imply that the number of lunar diameters which is the measure of the earth's shadow is as small as it is because the speed of the moon is accelerated while she is in the shadow. If this increased acceleration were a fact, the compensation for it in the calculation would increase the number of diameters, and the moon would be not a larger fraction of the width of the shadow than she seems to be by this measurement but a smaller one.

944 C (p. 469. 2-6):—καλοῦσι δ' αὐτῶν τὸ μὲν μέγιστον Ἑκάτης μυχόν . . . τὰς δὲ δύο μακράς. For the final words Turnebus proposed τὰ δὲ δύο, μικρά and Leonicus τὰ δὲ

δύο μακρά. The gender must correspond to τὸ μὲν μέγιστον (the antecedent of αὐτῶν is βάθη καὶ κοιλώματα), and the emendation of Leonicus is almost certain as far as it goes. Still, a secondary object of καλοῦσι parallel to Ἑκάτης μυχόν and explained by the subsequent words, περαιοῦνται γὰρ αἱ ψυχαὶ δι' αὐτῶν, is required. Porphyry says that Pherecydes spoke of μυχοὺς καὶ βόθρους καὶ ἄντρα καὶ θύρας καὶ πύλας and by means of these terms hinted at τὰς τῶν ψυχῶν γενέσεις καὶ ἀπογενέσεις. Plutarch in *De superstitione* 167 A mentions Ἄιδου τινὲς πύλαι βαθεῖαι, and it would be characteristic of him in the present myth to transfer to the moon this well-known landmark of the infernal regions. It seems to me highly probable, therefore, that the name which has dropped out of the text here is τὰς Πύλας and that we should restore τὰ δὲ δύο μακρά (τὰς Πύλας). There are many later references to the πύλαι through which the souls go down to birth and upwards after having left the body, although in these passages the πύλαι are either the sun and moon¹¹⁶ or the signs, Capricorn and Cancer, which are called ἡλίου πύλαι.¹¹⁷ In these passages the πύλαι are interpretations of the two στόμα or χάσματα of Plato's *Republic* 614 C, 615 D-E combined with the two entrances to the cave in *Odyssey* 13. 109-12 and the Ἑλλοιο πύλας of *Odyssey* 24. 12; and it is probable that Plutarch's corridors on the moon, whether the interpretation was original with him or not, were also suggested by the passage in the *Republic*.¹¹⁸

NOTES

1. The MSS have *ἑρε* but the plural makes Wyttenbach's *ἑρε* necessary (it is implied in the versions of Amyot and Kepler) and the imperfect unintelligible; Apollonides was not present at the earlier discussion (cf. 921 B, p. 405. 10-11), so that Raingeard's defense of the imperfect as a reference to that discussion is invalid. By the plural Lamprias means "you mathematicians"; cf. *ἑρε* . . . *εἰσὶν* *ἑρε* in

921 A (p. 404. 22) with *De Iside* 358 F: *καθάρει* *οἱ μαθηματικοὶ* . . . *λέγουσι*.

2. I.e. to put an extreme case, for one might argue that some observers of the moon in different parts of the *οἰκουμένη* should have their visual rays reflected to other parts of the land and not to the ocean and so should see different configurations in the moon. Cf. Simplicius *De caelo*, p. 457. 21-25: ἄλλ' *εἰ μὴ* *ἡ* *ἐφεστί*

17-148.2); Strabo 2.5.7 (C. 118) and 2.5.34 (C. 132); Berger, *Geschichte der wissenschaftlichen Erdkunde der Griechen*, pp. 410-11.

19. For the former cf. Cleomedes, 1. 10. 50-52 (pp. 32. 3-94. 22 [Ziegler]) and 1. 10. 55 (p. 100. 22-23), where 250,000 is given and for the latter cf. Strabo 2. 2. 2 (C. 95); cf. Berger, *op. cit.*, pp. 577-82 and Heath, *Aristarchus of Samos*, pp. 345-46.

20. *Diss. phil. vind.*, X, 99-101.

21. Cf. O. Gilbert, *Die meteorologischen Theorien des griechischen Altertums*, p. 652, n. 1 and p. 655, n. 1. Adler himself cites the passage of Lydus and the Aratus-scholium which Gilbert quotes and should, therefore, have seen that his supplement was impossible; he does in a footnote suggest the possibility of $\delta\ \tau\upsilon\alpha\ \tau\omicron\upsilon\varsigma\ \delta\iota\alpha\tau\epsilon\ \tau\alpha\chi\upsilon\mu\alpha\tau\iota\sigma\tau\epsilon\tau\alpha$ instead of $\delta\ \sigma\acute{\alpha}\mu\alpha\tau\alpha\ \gamma\acute{\alpha}\rho\delta\epsilon$.

22. *Adversaria critica*, I (1871), 71. Bernardakis does not mention it in his apparatus, and this is probably the reason why Adler missed it.

23. This is Turnebus' obvious and certain correction of $\epsilon\mu\iota\varsigma$ of the MSS. All editors—except Raingeard, of course—adopt this correction.

24. With $\sigma\iota\lambda\omega\varsigma\ \epsilon\gamma\omega\upsilon\varsigma$ cf. $\delta\ \phi\iota\alpha\varsigma\ . . . \sigma\iota\lambda\omega\varsigma\ \epsilon\gamma\omega\iota$ (931 A).

25. *Cambridge Philological Society, Proceedings*, 1943.

26. So Schmertsoch, *Beiträge für C. Wachsmuth*, pp. 53-54.

27. So the editors of Amyot, *Nouvelle édition* (Paris: Janet et Cotele, 1820), V, 259. Kepler had already translated: "in cavis speculis."

28. So Adler, *Diss. phil. vind.*, X, 102-3.

29. Wilhelm Schmidt in his edition of [Ptolemy] *De speculis* (Hero Alexandrinus, *Opera* [ed. Nix-Schmidt], II¹, 313) explicitly takes this phrase so. Since he makes no other change in the sentence nor any comment upon it, he may have interpreted it correctly in other respects too; but he says nothing about the meaning of the sentence, and no translator or commentator that I know has construed it correctly.

30. This is a mistake, and Schmidt, *op. cit.*, p. 314, n. 1 suggests that $\mu\alpha\sigma\tau\epsilon\tau\alpha$ should be read.

31. Cf. also [Ptolemy] *De speculis* 11 = Hero Alexandrinus, *Opera* [ed. Nix-Schmidt], II¹, 338. 11-340. 3 with Schmidt's n. 3 on p. 341.

32. For the idiom $\mu\epsilon\lambda\iota\sigma\tau\alpha\varsigma\ \lambda\epsilon\gamma\omega\iota\varsigma$, which Raingeard (p. 101, n. on 930 B 1) misunderstands, cf. Kühner-Gerth, II¹, pp. 313-14 and for this idiom with $\epsilon\pi\iota\ \epsilon. acc.$, "in respect of" cf. Isocrates 15. 267.

33. Prickard translates "when magnified images are reflected to the one point of sight," following the usual Latin version, "reflexione facta ad unum visus punctum," printed by Reiske, Wytttenbach, and Dübner; but no one explains what this could possibly mean. Kepler at least admits that he does not understand the phrase which he translates "ad unum aliquod visivae punctum." Schmertsoch's "nach einem Gesichtspunkte zu" is a "literal" mistranslation which even so is in the context unintelligible, as is Amyot's "À un point de la vue."

34. Prickard reads $\epsilon\tau\alpha\varsigma\ \delta\mu\acute{\alpha}\sigma\iota\varsigma\ \chi\omega\sigma\iota\upsilon\varsigma\ \delta\epsilon\delta\omicron\tau\epsilon\varsigma$, $\delta\iota\epsilon\delta\omicron\tau\epsilon\iota\upsilon$ and translates "they observe that these images meet in one point and further claim"; this is open to many objections, but it is enough to observe that the necessary subject is still lacking and that $\delta\mu\acute{\alpha}\sigma\iota\varsigma\ \chi\omega\sigma\iota\upsilon\varsigma$ in such a sense is highly questionable. Raingeard, who retains the reading of the MSS, gives a

"translation" which is utterly impossible and which for once even he finds unsatisfactory himself.

35. Dübner assumed a lacuna between $\chi\omega\sigma\iota\upsilon\varsigma$ and $\epsilon\delta\omicron\tau\epsilon\varsigma$ and Bernardakis between $\chi\omega\sigma\iota\upsilon\varsigma$ and $\epsilon\delta\omicron\tau\epsilon\iota\upsilon$. Adler (*Diss. phil. vind.*, X, 103-4) criticized this and proposed: $\delta\tau\epsilon\lambda\acute{\alpha}\sigma\iota\varsigma$. ($\delta\epsilon\tau\epsilon\ \tau\omicron\upsilon\theta'$) $\epsilon\iota\ \mu\grave{\eta}\ \sigma\upsilon\gamma\chi\omega\sigma\iota\upsilon\varsigma\ \delta\iota\epsilon\delta\omicron\tau\epsilon\iota\upsilon\ . . . \delta\tau\epsilon\lambda\acute{\alpha}\sigma\iota\varsigma$. His stop after $\delta\tau\epsilon\lambda\acute{\alpha}\sigma\iota\varsigma$ and his desideratum of a subject for $\delta\iota\epsilon\delta\omicron\tau\epsilon\iota\upsilon$ are correct, but he has confused the context of the argument.

36. This alone disposes of Prickard's $\epsilon\iota\varsigma\ \tau\omicron\upsilon\ \delta\ \epsilon\pi\iota\chi\theta\epsilon\iota\varsigma\ \kappa\alpha\iota\ \beta\acute{\alpha}\theta\epsilon\iota\alpha\varsigma$, in which δ for the ν of $\tau\omicron\upsilon$ is much too short for the lacuna anyway, as well as of Emperius' $\epsilon\iota\varsigma\ \tau\omicron\upsilon\ (\nu\iota\alpha\tau\epsilon\iota\omega)$ and Herwerden's $\epsilon\iota\varsigma\ \tau\omicron\upsilon\ (\nu\iota\delta\epsilon\iota\omega)$ (*Mnemosyne*, XXXVII [1909], 214).

37. Cf. $\tau\alpha\tau\alpha\chi\iota\sigma\iota\varsigma\ \chi\omega\sigma\iota\upsilon\varsigma$ in 930 F (p. 432. 3).

38. Cf. Pliny *NH* 2. 13 (10). 56; Ptolemy *Synaxis* 4. 2 (I, 270. 1 ff. [Heiberg]). That the term "Saros" used for this period is modern in origin is shown by O. Neugebauer in *Quellen und Studien zur Geschichte der Mathematik*, Abt. B, IV (1938), 241-53 and 407-10.

39. Ptolemy *Synaxis* 4. 2 (I, 272. 12-20 [Heiberg]); cf. Rehm, s.v. "Hipparchos," *RE*, VIII, 1675.

40. *Dioptra* 35 (Heronis Alexandrini *Opera*, III, 302. 20-22 [Schöne]).

41. *Synaxis* 6. 6 (I, 486. 6 ff. [Heiberg]).

42. *NH* 2. 13 (10). 57.

43. *Hermathena*, XVI (1911), 317.

44. *Plutarch on the Face of the Moon* (1911), pp. 58 f., though he and Purser too (*loc. cit.*) confess doubt that the word could bear such a meaning.

45. Cf. Kepler in n. 59 to his translation: "Plutarchus hic sodalitis suo illudit aperta sophistica. Recessus Solis a vertice facit rerum brevium umbras longas. In plenilunio Sol multum recedit a vertice orbis lunari insistentium, aut etiam insculptarum fovearum: ergo et illarum fovearum, quamvis sint parvae, umbras facit longas. Hic major sonat de recessu circulari a puncto coeli, quod imminet vertici rerum, quae umbras jaciunt, minor vero sonat de recessu rectilineo Solis ab ipso vertice rerum in Luna plena, ut illustratarum vel obumbratarum. Ergo non sequitur conclusio. . . ." Kepler addresses his remarks to the following application of the general statement; but in fact the general statement or "major" itself is wrong, for Plutarch says not "recessus a vertice" in any sense but simply "recessus."

46. *Diss. phil. vind.*, X, 160-61.

47. Both E and B read $\delta\epsilon\ \kappa\epsilon\phi\alpha\lambda\epsilon\varsigma\ \delta\epsilon\kappa\epsilon\iota\mu\epsilon\sigma\theta\epsilon\iota\varsigma$, which gives the opposite of the sense obviously wanted, for it could mean nothing but that the moon is suspended from the head of those who dwell under it! All editors (save Raingeard who keeps the reading of the MSS though he translates it "elle leur pend sur la tête") print $\epsilon\pi\iota\epsilon$ instead of $\delta\epsilon$, but none indicates that Stephanus (1624) is the source of this emendation, which Reiske, Wytttenbach, Hutten, and Dübner print without comment as if it were the reading of the MSS. Even this change, however, is not enough. Wytttenbach in his *Index graecitatis in Plutarchi Opera*, s.v. $\delta\epsilon\kappa\epsilon\iota\mu\epsilon\sigma\theta\epsilon\iota\varsigma$ states "pass. pro $\delta\epsilon\kappa\epsilon\iota\mu\epsilon\sigma\theta\epsilon\iota\varsigma$ II 937 E," but the use of $\delta\epsilon\kappa\epsilon\iota\mu\epsilon\sigma\theta\epsilon\iota\varsigma$ to express [its opposite] $\delta\epsilon\kappa\epsilon\iota\mu\epsilon\sigma\theta\epsilon\iota\varsigma$ is unexampled and incredible; and it is much more reasonable to suppose that the true reading was $\delta\epsilon\kappa\epsilon\iota\mu\epsilon\sigma\theta\epsilon\iota\varsigma$, especially since the ligature for $\delta\epsilon$ in composition could easily have been mistaken for $\delta\epsilon$.

48. Adler (*Diss. phil. vind.*, X, 110) correctly pointed out that the lacuna is not to be filled by ref-

erence to 938 F as Bernardakis thought it should. Purser's supplement (*Hermathena*, XVI [1911], 318) is open to the same objection. Adler purposely paid no attention to the size of the lacuna; he obviously was ignorant of the reason for the discrepancy between E and B.

49. Cf. Theon of Smyrna, pp. 135. 21-136. 3 (Hiller) and for all three motions mentioned by Plutarch, cf. *ibid.*, pp. 134. 13-135. 11.

50. Cleomedes, 2. 4. 100 (p. 180. 25-26 [Ziegler]); on Cleomedes' own conception cf. Manitius in his edition of Geminus *Elementa astronomiae*, p. 273, n. 24.

51. Cf. Archytas, Frag. B 1 (I, 433. 6 [Diels-Krans]); Xenophon *Cynae*, 6. 33.

52. Cf. *De placitis philosophorum* 889 O = Aetius 2. 16. 2; Theon of Smyrna, p. 134. 13-16 and p. 179. 8-9 (Hiller); Aristotle *De caelo* 291^b 2-3; cf. *ἀντιφασίης* in Simplicius *De caelo*, p. 473. 19 and Plutarch's use of *ἀντιφασίης* in 939 A *infra*.

53. Purser's notion (*Hermathena*, XVI [1911], 318) that *ἐν τῷ ἰσχυρῷ* is a gloss cannot be entertained, for the phrase is necessary to the sense of *ἀντιφασίης* and is supported by the similar passages of Theon cited in nn. 49 and 52 *supra*.

54. Cf. Aristotle *Metaphysics* 998^a 2-6.

55. *Branes*, XXV (1927), 276.

56. Cf. Simplicius *De caelo*, pp. 496. 23-497. 5.

57. *Diss. phil. vind.*, X, 111.

58. = Geminus' *Epitome apud Simplicius Phys.*, p. 292. 26-27 (Diels).

59. The *ἐχέτω* of E is clearly a mistake induced by the preceding datives, *ταῖς ἀμετασφάκτοις*. B's *ἐχέτω* is right, whether it is based on a correct archetype or is only an "emendation" of the scribe of B.

60. Cf. also Geminus 18. 2 (p. 200. 14-22 [Manitius]).

61. This addition, which, according to Raingeard, is made by the smallest hand in the Aldine of the Bibliothèque Nationale, R.J. 94, and is read by Reiske, Wytenbach, and Hutten, is guaranteed both by the *μὴτε πίνοντας* of E and B and by Pliny *NH* 7. 2. 25: "nullum illis cibum nullumque potum."

62. Cf. Megasthenes, Frag. 34 (*Frag. hist. graec.*, II, 425-27 [Müller]).

63. *Diss. phil. vind.*, X, 113-14.

64. *Wiener Studien*, XLII (1921), 163-64.

65. *Festschrift Moris Winternits* (1933), pp. 298-302.

66. Cf. Otto Stein, *RE*, XV¹, 239, s.s. "Megasthenes."

67. For *ἡ δὲ ἄλμυς* cf. Plutarch *Sept. sep.* 157 D-F; Pseudo-Plutarch *Comment. in Hesiod.* § 8 (VII, 51. 14 ff. [Bernardakis]); Pliny *NH* 22. 22 (33). 73; Porphyry *Vita Pythag.* § 34 and *De abstinentia* 4. 20 (p. 266. 5 ff. [Nauck]); Plato *Leges* 677 E, where the word *ἄλμυς* is not itself mentioned but where the sentence *λέγει μὲν Ἡρόδοτος ἡμάρτεσθαι πάλαι, τῷ δ' ἔργῳ ἐκείνῳ* (scil. *Ἐπιμαρτίης*) *ἀντιθέσθαι* is strikingly echoed by the words of Plutarch in our passage: *ἡλπίσθαι μὲν Ἡρόδοτος εἰδέναι . . . ἔργῳ δ' ἑμάρτην παρίσχεσθαι Ἐπιμαρτίης*.

68. Wytenbach; confusion of *α* and *ε* is common.

69. *μα . . . ραι* could easily be misread *μη . . . μη*, especially if *ραι* was written as a final ligature. (*γαστήρ* γ' εἰ) fits the lacuna of 8 letters in E and 9 in B, since for *α* a ligature of one letter-space is invariably used in our MSS. A proper name is demanded

by the *αἰεὶς ἀγγεῖα* which follows; and the parallel with 938 O makes the mention of Megasthenes certain.

70. Both E and B have *ἐκείνῳ*, not *ἐκείνῳ*, which both Bernardakis and Raingeard print without comment.

71. *τῷ δ' ἄλμυς* was Adler's suggestion in 1933 for *τῷ τε ἄλμυς* of the MSS, to which it is very close, with which, indeed, it is almost identical, save for the final *α* which he leaves unexplained. I take this *α* to have been a corruption of *ε* after *ἄλμυς* was misread *ἄλμυς*.

72. *Works and Days* 41.

73. I.e., the imperfect, *ἀγγεῖα*, expresses what Lamprias considers to have been the intention of Megasthenes; in the context it rather implies the admission that Megasthenes did not make this intention explicit.

74. It is noteworthy that in *Sept. sep.* 157 E-F Plutarch makes Pericles doubt that Hesiod had had any such intention.

75. Except that the second hand of B has written *α* over the last two letters of *καλῶς*. Adler (*Diss. phil. vind.*, X, 114-15) mistakenly supposed that the MSS read *ἐμὴν* and *ἀρξάμενος*, and Bernardakis does print the former without annotation as if it were the reading of the MSS, whereas it is an emendation of Stephanus, while *ἀρξάμενος* is Hutten's after the version of Xylander.

76. . . . *πρότερον . . . ἐμὴν*, (4) *εἰ μὴ τι καλῶς . . . ἀρξάμενος*, Wytenbach; . . . *πρότερον . . . ἐμὴν*, *εἰ μὴ τι καλῶς . . . ἀρξάμενος*, Hutten, Bernardakis, and Raingeard; *πρότερον . . . ἐμὴν*, *εἰ μὴ τι καλῶς . . . ἀρξάμενος*, Adler.

77. Cf. *Sept. sep.* 150 B (*τί οὐκ ἔφρασε . . . ἦσαν ἔφρασε*), 162 B (. . . *φράσει τὸν Ἀρίωνα κατασφάκτον*).

78. *Der Dialog*, II, 186, n. 6, approved by Adler, *loc. cit.*

79. The *καὶ* is the stranger, of course; this *ἐπεὶ* in 941 C and the whole myth indicate, and it is impossible to suppose with Adler, who changes *πρότερον* to *πρότερον*, that *καὶ* here refers to *τὸν Κρόνον κατασφάκτον καὶ ἀρξάμενος* in 945 D.

80. *La démonologie de Plutarque*, p. 43, n. 2 and p. 73.

81. Cf. the sensible remarks of R. Flacelière in his edition, *Sur la disparition des oracles*, p. 28.

82. The reading of Stephanus in his edition of 1624.

83. O. Apelt, "Zu Plutarch und Plato," *Jahresbericht Gymnasium Carolo-Alexandrinum zu Jena*, 1904-5 (*Prog. No. 815*, Jena, 1905). The same emendation was made by Adler in *Diss. phil. vind.*, X (1910), 117 apparently independently (cf. p. 87, n. 1); and Raingeard in his edition of the *De facie* (Paris, 1935) prints it as his own.

84. This was at least 89 years before Schmertens proposed to substitute *τὸν δὲ Βριάρεω* for *τὸν δ' αὖτις* and 135 years before Raingeard claimed *φρασεῖν* as his own emendation.

85. *ἐκεῖ μάλιστα μίαν εἶναι ἡφαιστοῦ τὴν Κρόνον κατασφάκτον φρασεῖσθαι ἐπὶ τοῦ Βριάρεω καθιέδοντα*. *Ἰσχυρὸν γὰρ αὐτῷ τὸν ἔνθεν μακρυχρόνῳ, πολλοὶ δὲ καὶ αὐτὸν εἶναι δαίμονα ἐκείνῳ καὶ ἀρξάμενον*. In this sentence *καθιέδοντα . . . μακρυχρόνῳ* corresponds to *De facie* 941 F (*καθιέδοντα . . . Ἰσχυρὸν ἐπὶ τοῦ Διὸς*) and *πολλοὶ δὲ ἀρξάμενος* to *De facie* 942 A (*τοὺς δὲ δαίμονας . . . τὸν Κρόνον*).

86. Apelt, *op. cit.* (n. 83 *supra*). Von Arnim ("Plutarch über Dämonen und Mantik," pp. 40-42 [*Ver-*

hand. h. Akad. van Wetenschappen te Amsterdam, Afd. Letterk., 1921)) proposed *τὸ δ' ὄντων*, apparently without knowledge of Apelt's emendation. Von Arnim's further alterations of the passage are too violent and extensive to have any probability.

87. "Amiotus vertit ac si scriptum esset, *τὸ δ' ὄντων ἔχοντα φρουρὰς ἐκείνων καὶ τὸν καὶ κήρυκα*." This is repeated by Hutten. Von Arnim expressly refers to Wyttenbach as his authority for Amyot's version.

88. Jacques Amyot, *Les œuvres morales et philosophiques de Plutarque* ... (Paris, 1618), II, 624 G.

89. This in itself is a strong argument against Adler's (*Βαίρων*) *ἐκ τὸν οὐδὲν ὅτι ἔχοντα φρουρὰς καλ.*, which in addition requires an improbable rearrangement of the word order of the MSS. The evidence that Briareus was ever thought to be the son of Cronus is, moreover, exceedingly weak; Adler can adduce only Eustathius *In Iliadem* 124. 3: *ὅτι δὲ μυθολογία Βριάρεως φῶτα φρουρὰ τῶ πατρὶ, ὃ Κρόνῳ ὄντι κατὰ τὸν Ἀβρίανδ' ὃ Ποσειδῶνι κατὰ τινάς, ἀλλὰ καταβραβεύει αὐτὸν καλ.*, where *Κρόνῳ* ... Ἀβρίανδ' is according to Müller (*Frag. hist. graec.*, III, 594, Frag. 42) simply a slip of the memory on the part of Eustathius. In any case, Adler is misleading in printing *Κρόνῳ* ... ἀλλὰ καταβραβεύει αὐτὸν and suggesting that this refers to the relation between Briareus and Cronus in Plutarch's myth, for in Eustathius *αὐτὸν* refers to the nearer Ποσειδῶνι for which cf. *Schol. Iliad. A*, 399 (I, 51. 15 [Dindorf]): *καὶ τὸν πατέρα Ποσειδῶνα καταβραβεύει*.

90. *CQ*, XXVIII (1934), 25.

91. Instead of *ἐν παρακρίσει* there (p. 461. 7-8) the suggested correction of Bernardakis, *ἐν αἰσθητικῇ*, should be adopted.

92. Wyttenbach, Emperius, and Bernardakis retained *εἶναι δ' ἀνάστασις* in their emendations. Madvig changed these words to *ἐκείνῳ πατρὶ*, Apelt to *εἶναι δ' ἀναστασία*, Herwerden to *εἶναι δ' (ὅ) ἀναστάσις*, Adler to *ἐκείνῳ ἀναστάσις*, Pohlens to *ἐκείνῳ στασιάζοντι*, von Arnim to *ἐκείνῳ σιγῇ*, Pursor to *ἐκείνῳ σιγῇ*, and Bevan to *εἶναι, ἀνάστασις δὲ (sic)*. It must be remembered that the sentence is part of a narrative in indirect discourse, so that *εἶναι* can stand as the main verb.

93. So in *Alexander*, chap. 4 (666 B) L¹ and P have *ἀνάστασις*; in Proclus *In Platonis Cratylum*, p. 61. 29-30 all MSS except one have *ἀνάστασις*; and in Proclus *Elements of Theology*, chap. 35 (p. 38. 18 [Dodds]) one MSS has the false *ἀνάστασις*.

94. Cf. Plotinus *Enn.* 3. 8. 2; Proclus *In Platonis Cratylum*, p. 59. 5-6 (Pasquall); Olympiodorus *In Platonis Phaedonem*, p. 3. 22-23 (Norvin); Damascius *De sol. 325 r* (II, 164. 9 ff. [Ruelle]); Eustathius *Ad Iliadem* 203. 20 ff. and 1012. 27.

95. Plutarch uses this phrase in *Golba*, chap. 1 (1053 O) where he says that the Roman Empire was overtaken by events similar to *τοῖς λεγομένοις τιτανικοῖς πόλεσι καὶ κινήσει*. In *De sollertia animalium* 975 O Plutarch speaks of the habitat of marine animals as *τιτανικὸν* ... *τότε* ... *ὅτ' τὸ λογικὸν καὶ σοφὸν ἐγκατέβησαν τῇ φύξει*.

96. Unless it were *ἀν* (*ἀν*) governing *δὲ ὅτι* καλ. but standing after it, as Apelt suggested (*op. cit.*, n. 83 *supra*); but such a condition is out of place in the context.

97. Bernardakis had suggested ... *φύξει* (*ἀν* *ἀν*) *δὲ αὐτῇ* ...

98. Herwerden, *Mnemotecnica*, XXXVII (1909), 214 criticized by Adler, "Zwei Beiträge" etc. (*Jahresbericht*

[XXXVII] des k. k. Staalsgymnasiums in Nikolsburg für 1909-10).

99. Bernardakis had suggested changing *παρτάσει* to *πέρτα πατρὶ*.

100. Reiske's punctuation, *τὸ δ' αὐτὸς ὄντων*; (*δὲ Σάλλε*) *μὲν παρὶ τούτων καλ.*, implies that Sulla addressed the question to the stranger. This possibility is mentioned by Raingeard, who rejects it in favor of the usual interpretation, however.

101. It is implied by Amyot's version: "et l'autre mort en la Lune" and was printed as his own correction by Wyttenbach.

102. For Demeter as goddess of the dead cf. Plutarch's *Lycurgus* 27 (56 O) and Bloch in Roscher's *Myth. Lexicon*, II, 1334-35.

103. Cf. the note on 942 F (p. 464. 22) *supra*.

104. So with regard to the quotation of Heraclitus a few lines above (p. 467. 8) we need not take seriously Heinze's sarcastic remark (*Xenokrates*, p. 127, n. 2): "Auch dies werthvolle Fragment verdanken wir den Dämonen des Kronos."

105. 943 F (p. 467. 18-20): *καὶ γὰρ αὐτὸν αὐτὸς τὸν κόσμον ἐκ τῶν ἀνὰ καὶ τῶν κάτω φύσει φερόμενον στοιχημαζόμενον ἀπὸ ἀλλήλων παρτάσει τῇ κατὰ τὸν καὶ κήρυκα*. Cf. *Stoicorum veterum fragmenta*, II, Frag. 555, which shows that the reason given here for the immobility of the universe is a Stoic dogma; for this reason von Arnim ("Plutarch über Dämonen," p. 67) contended that Plutarch's source must have been an eclectic Platonist after Antiochus. The source of the whole passage, at any rate, could not have been Posidonius or any Stoic, for the Stoic doctrine is introduced to support the notion that the moon is a mixture of earth and "ether" (*ἄστρον στοιχεῖον καὶ γῆ—τῇ αἰθέρι* λέγεται τὴν σελήην ἀνακραμένην), i.e., of the lowest and highest elements, whereas Posidonius and the Stoics held that she consists of air and fire, two light elements (*De facie* 921 F, 922 A; Aetius 2. 25. 5; *SVF*, II, 136. 32). The designation of the moon as *αἰθερία γῆ* is variously ascribed to "Egyptians," "Pythagoreans," and "Physici"; cf. Proclus *In Timaeum*, I, 147. 6-9 and II, 48. 15-18 (Diehl); Simplicius *De caelo*, p. 512. 18 (Heiberg); Macrobius *In somn. Scip.* 1. 11. 7 and 19. 10 f. In *De defectu oraculorum* 416 E Plutarch appeals to similar designations as evidence that the moon was understood to be a mixture of both.

106. This is certainly true of *καλεῖται* in 943 O (p. 466. 11): ... *δὲ λαμβάνει ἄλυσιν καλεῖται*.

107. Treu noted the variant (*Zur Geschichte der Überlieferung von Plutarchs Moralia*, II [Ohlau, 1881]); but it apparently remained unknown to Bernardakis and Heinze. Raingeard reports the MSS correctly and prints the reading of E in his text, stating in his note that it "ne paraît pas s'opposer pour le sens à la leçon *παρτάσει*"!

108. For Xenocrates' theory cf. Cherniss, *Aristotle's Criticism of Plato and the Academy*, I, 143 and 435 and the citations there.

109. Either the mistaken repetition appeared in the archetype, from which E copied it and B "corrected" it; or, if Manton is right about the relation of B to E (*CQ*, XLIII [1949], 97-104), B "corrected" E (or Manton's intermediate *γ*), who may either have made the mistaken repetition himself or have copied it from his archetype.

110. Even this would not serve, if Manton's contention that B copied E or an intermediate γ is correct.

111. "Plutarch über Dämonen," pp. 56-57.

112. Cf. *Quaest. conviv.* 677 E: . . . *ἀπὸ τοῦ αὐτοῦ ἀνθρώπου τῆς δακρυῆς*.

113. Cf. Aristotle *De caelo* 273^a 32: *καταμετρεῖται . . . ἀπὸ τοῦ αὐτοῦ*; Hipparchus *In Arati et Eudoxi phaenomena*, p. 94. 17 (Manilius): *ἐξ αὐτοῦ καταμετρεῖται*.

114. Even apart from the fact that the definite article is required; cf. 923 B: *ταῖς μάλιστα τοῖς αὐτοῖς μεγέθεσιν*.

115. Not only because of the emphasis placed upon the narrowness of the shadow where the moon traverses it (923 B *supra*) but because no one ever contended or could contend that the diameter of the

shadow is equal to only a few lunar diameters because the moon is so small!

116. Cf. Porphyry *De antro nympharum* 29 (p. 76. 21-25 [Nauck]).

117. Proclus *In Rem publicam*, II, 128. 26-130. 15 (Kroll) = Numenius, Frag. 42 (Leemans); Porphyry *De antro nympharum* 21-23 = Numenius, Frag. 43 and *De antro nympharum* 28 = Frag. 44 (Leemans); Macrobius, *In somn. Scip.* 1. 12. 1 = Numenius, Frag. 47 (Leemans).

118. The notion of W. F. Warren (*Class. Rev.*, XXV [1911], 166-67) that the two passages in the *De facie* are not on the moon but are openings at either pole of the lunar sphere is quite impossible, for Plutarch expressly calls them hollows on the moon analogous to the great gulfs on the earth.

PLOTINUS : A DEFINITIVE EDITION AND A NEW TRANSLATION

Since the *editio princeps* was published in 1580 the *Enneads* of Plotinus have been edited in their entirety six times: by Creuzer and Moser in 1835 and again in 1855,¹ by Kirchhoff in 1856, by Müller in 1878-1880, by Volkmann in 1883-1884, and by Bréhier in 1924-1938.² None of these is a truly critical edition. Creuzer in 1835 gave more information, however undigested and confusing, concerning the readings of the MSS than did any of his successors; and since that time, despite the advances made by Kirchhoff and Müller in distinguishing the families of the principal MSS, each succeeding edition has been a further departure from the MS tradition and

¹ That of 1835 is the edition in three volumes printed at Oxford by the University Press; that of 1855 published by Didot in Paris is a reprint with some corrections and alterations of the Oxford text and Ficino's translation but without the critical apparatus, the commentary, and the indices. References to "Creuzer," unless otherwise specified, are always to the edition of 1835.

² In 1947 there was published the first volume of *Le Enneadi: Introduzione, testo critico, traduzione, e note* di Giuseppe Faggin, Milano, Istituto Editoriale Italiano. The second volume appeared later in the same year, and the third in 1948. So far as I can discover only these three volumes, containing Porphyry's *Life of Plotinus* and the first three *Enneads*, have been published, though Faggin intended to edit and translate all of the *Enneads*. He based his text (cf. vol. I, pp. xxv-xxvi) upon the MSS A, B, C, D, E, M, Q, and Marc. B (i.e. Marciianus Graecus 241); but for the readings of the first five he depended upon the reports of Creuzer, Volkmann, and Bréhier — which are defective — and collated only the last three himself, though Marc. B is merely a copy of A and so, worthless. His text and apparatus cannot be considered as critically sound (cf. Schwyzer, *Gnomon*, XXI [1949], pp. 64-67); and of both text and translation it has been rightly said that they "risentono molto di Bréhier."

a further obscuration of the evidence.³ Since early in 1951, however, a halt has been called to this tendency, and for the first three *Enneads* students of Plotinus now have at their disposal an edition which is a model of philological erudition and of painstaking, conscientious, and systematic scholarship. This is the first volume of the complete edition of Plotinus which is being edited by Paul Henry and H.-R. Schwyzer.⁴

Both editors have long been known for their work on Plotinus. Schwyzer has published important articles on the MSS A, V, and D (*Rhein. Mus.*, LXXXVI [1937], pp. 270-285 and pp. 358-384; *ibid.*, XCIII [1950], pp. 154-158), on the Pseudo-Aristotelian *Theology* and its relation to Porphyry's edition of the *Enneads* (*ibid.*, XC [1941], pp. 216-236), on Plotinus' interpretation of *Timaeus* 35 A (*ibid.*, LXXXIV [1935], pp. 300-368), and on the relation of Plotinus' triad of hypostases to his interpretation of *Parmenides* 139-145 (*Mus. Helvet.*, I [1944], pp. 87-99); and he is the author of the new article on Plotinus in the Pauly-Wissowa *Realencyclopädie* (XXI, 1 [1951], cols. 471-592). Ever since 1933 Henry has been publishing a series of books and articles dealing with the text of Plotinus, its constitution, influence, and transmission. Of these works three books are especially important, since they were meant to constitute a critical introduction to the edition of the *Enneads*.⁵ The first of these, *Recherches sur la Préparation Évangélique d'Eusèbe et l'Édition Perdue des Oeuvres*

³ For example, I have in casual reading of the first three *Enneads* come upon more than 120 passages in Bréhier's text where without any indication in his apparatus he prints what has either the slightest MS authority or none at all and so implies that these readings, many of which are conjectures of Kirchhoff's, Müller's, or Volkmann's, represent the consensus of the MSS.

⁴ *Plotini Opera. Tomus I: Porphyri Vita Plotini, Enneades I-III* ediderunt Paul Henry et Hans-Rudolf Schwyzer (Museum Lessianum Series Philosophica XXXIII). Paris, Desclée de Brouwer-Brussels, l'Édition Universelle, 1951. Pp. LVIII + 420 with a photogravure of Codex A, Folio 62^r.

⁵ Special attention should also be called in this connection to two of Henry's articles: "La Longueur des Lignes dans l'Archetype des Ennéades de Plotin" (*Rév. Ét. Grecques*, XLIX [1936], pp. 571-585 and "Vers la Reconstitution de l'Enseignement Oral de Plotin" (*Acad. Royale de Belgique, Bull. de la Classe des Lettres*, XXIII [1937], pp. 310-342).

de Plotin Publiée par Eustochius (Paris, Leroux, 1935), undertakes to establish the fidelity of Porphyry, the first editor of the *Enneads*, to the autographs of Plotinus from which he made his recension.⁶ The second, *Études Plotiniennes I: Les États du Texte de Plotin* (Paris, De Brouwer, 1938), a detailed study of the indirect tradition, reinforces this conclusion and establishes the authority of the archetype of the direct tradition. That archetype, Henry concludes, was as faithful to the recension of Porphyry as Porphyry was to the original written by Plotinus, and the indirect tradition is rather a guarantee of the faithfulness of the Porphyrian edition reproduced by the archetype than a source of corrections for the text of our MSS. The third volume, *Études Plotiniennes II: Les Manuscrits des Ennéades* (Paris, De Brouwer, 1941; Deuxième Édition, 1948), an exhaustive study of the character and history of the extant MSS, has for its purpose the determination of the necessary and sufficient evidence for the reconstitution of the archetype, the common ancestor of all the MSS of the direct tradition. No attempt is made to establish a *stemma* leading from the original to the extant MSS. Henry is here concerned rather to identify in the mass of material all the representative elements of the direct tradition and so to establish the apparatus of the critical edition on a basis broad enough to be forever independent of any hypothesis concerning the ultimate relations of the families represented by the extant MSS.⁷ In four chapters he studies the MSS of groups w, x, y, z respectively, in a fifth the MSS which Perna used for the *editio princeps*, and in two Appendices four lost MSS of which some record remains and the fragment of Eusebius in Vaticanus Rossianus 986. The volume is equipped with a detailed inventory of the MSS, a table of watermarks, and an index of proper names. One of the most important results of this study of Henry's is the identification of the MSS derivative from A (Laurentianus 87, 3), several of which had been used as independent witnesses to the arche-

⁶ This volume was reviewed by Schwyzer in *Gnomon*, XII (1936), pp. 543-549.

⁷ Suggestions of possible *stemmata* are reserved for the *Histoire du Texte de Plotin*, which in Henry's plan was announced as a third volume of the *Études Plotiniennes*, a volume in which the results of the analysis of the first two volumes would be synthesized.

typal text but which Henry has shown to have no textual authority whatever. The results of this volume, however, are to be corrected in the light of three pages of "Corrections et Compléments" at the end of the second edition (1948), which save for this list is an exact reimpression of the first. In 1946 Henry and Schwyzer began their collaboration in the preparation of the critical edition, and their study of the variants led them to certain conclusions different from those that Henry had printed in *Les Manuscrits*. In particular, they decided that D (Marcianus Graecus 209), which Henry had, though with some hesitation, treated as a member of family y (cf. *Les Manuscrits*, p. 149), does not belong to y or to any other of the recognized groups of MSS but constitutes a family of its own; and they distinguished in the hand which Henry had hitherto called A¹ and Schwyzer A² (cf. *Les Manuscrits*, pp. 20-30) two separate hands: one, hereafter to be called A¹, which they believe to be that of the scribe of A himself correcting his MS from a source different from any extant MS and different also from the sub-archetypes of these MSS, so that the readings of A¹ must represent a separate family or another archetype (cf. pp. XIII-XIV of *Plotini Opera* I); and a second, hereafter to be called A², the corrections of which appear to be conjectures and so to have no authority for the text.

The results of *Les États* and *Les Manuscrits*, which are the methodological foundation of the new text, are succinctly recapitulated in the *Praefatio* to *Plotini Opera* I. Here the editors begin by expressing their conviction that Porphyry, though he made some orthographical alterations, refrained entirely from altering the words and opinions of Plotinus or from clarifying obscure passages by the addition of notes or comments and that the extant MSS of the *Enneads* have faithfully preserved the edition of Porphyry.⁸ The archetype of our MSS was, they believe, written some time between the 9th century and the 12th; and, since they hold that this archetype was very slightly corrupted, they consider it to be their primary

⁸ Contrast Bréhier's statement in the Introduction to his edition (Plotin, *Ennéades* I, pp. XXXIX-XLII): "Il y a dans nos manuscrits deux traditions inextricablement mêlées, qu'il est impossible de séparer par aucun moyen." "Notre tradition manuscrite est à la fois uniforme et très défectueuse." "Il est indispensable . . . de faire appel aux conjectures."

duty to restore this archetype, in doing which they maintain that they are restoring Plotinus' own words. They then describe the primary MSS, which they divide into five families,⁹ and ten secondary MSS derivative from them of which they have made occasional mention in their apparatus. Of the latter they collated only K (Parisinus Coislianus 169) in its entirety; but of the primary MSS they collated in their entirety all those of the families w, x, z, and D and U, S, M of the family y. C they collated only for the *Life of Plotinus* and the *Pinax*; N and V they did not collate themselves, and they cite the readings of these MSS only when U, S, and M are not in agreement. Here one must observe with admiration that their method of collaboration was not to divide the work between themselves but to duplicate it; each of them inspected the MSS and worked out his text independently, and then the two of them together considered the doubtful readings, studied the difficult passages, and decided in concert the text finally to be adopted. An apparatus which is the result of such collaboration commands and deserves a degree of confidence such as can be granted that of very few Greek texts; and the care and patience which such collaborators have devoted to their work give them the right to express the severe judgments that they pass upon the earlier editors of Plotinus.¹⁰

⁹ Family w: A (Laurentianus 87, 3), E (Parisinus Gr. 1976); Family x: B (Laurentianus 85, 15), R (Vaticanus Reginensis Gr. 97), J (Parisinus Gr. 2082); Family y: U (Vaticanus Urbinas Gr. 62), S (Berolinensis Gr. 375), N (Monacensis Gr. 215), M (Marclianus Gr. 240), C (Monacensis Gr. 449), V (Vindobonensis philosophicus Gr. 226); Family z: Q (Marclianus Gr. 242), L (Ambrosianus Gr. 667); Family D: D (Marclianus Gr. 209). Besides these five families a sixth is represented by A¹, the first corrector of A (see page 242 *supra*); and J¹, the scribe of J as A¹ is the scribe of A, is presumed to have drawn some of his readings, which correct errors in all other MSS (e.g. III, vii, 9, 2: *συνεχούς οὐσης*), from a MS of a seventh family or from another archetype. Henry and Schwyzer are confident that families w, y, and z are descended from three distinct MSS, but they are uncertain whether the MSS of family x also are descended from a single MS or come each from a different sub-archetype.

¹⁰ The earlier editions are analysed and criticized on pp. XXV-XXXI of the Praefatio: some examples of the erroneous reporting of each are given on pp. XXX-XXXI, where an index of the editors' conscientiousness may be seen in the fact that Henry's own errors in *Les États* are exemplified with the rest.

In selecting their text they have trusted *w* more than *z*, *y* more than *w* or *x*, the consensus *xy* more than *wz*, and the consensus *wx* more than the consensus *yz*. They have given great weight to the corrections of *A*¹¹; but contrary to the practice of earlier editors they have very seldom adopted readings which *A* alone exhibits, since they believe that *E*, not *A*, is the closer to the original, *w*.¹¹ Even in orthography they have followed the MSS closely, trying to be faithful to the archetype even in this matter. In their apparatus they profess to give all the variants at least of the primary MSS and to indicate which of the earlier editors adopted those variants that they reject; and they have generously recorded even for passages which they hold to be sound suggested emendations against which they think the reader should be warned. A bibliography at the end of the Praefatio lists *in extenso* the works to which abbreviated reference is made in the apparatus. They have moreover briefly explained in the apparatus how they understand those difficult passages for which they have kept the text of the MSS that others have emended, and in other places they have duly confessed their inability fully to understand the text which they nevertheless believe to be authentic. Four pages of *Sigla* and *Compendia* explain the elaborate system of symbols, abbreviations, and variations of type whereby they have contrived to make their apparatus at once exhaustive and succinct.

This apparatus, which is the heart of the work, gives the student of Plotinus for the first time a clear and complete schematic account of the direct MS tradition of the text and a history of its treatment in the printed editions. Between the text itself and this apparatus criticus are printed four other apparatuses. Directly under the text there is a compendium of the MSS which represent the archetype (*Enn.*) for the text of

¹¹ On p. XXXII they give a list of four passages in which, nevertheless, they adopt the reading exhibited by *A* alone and of 16 passages in which they follow one of the MSS, *B*, *J*, *U*, or *Q*, against all the others. In addition I have noticed ten passages in which they follow *y* against all other MSS (i.e. against *wx*, *wxQ*, or *wxQD*), five in which they follow *x* against all others, three in which they follow *w* against all others, and three in which they follow *wz* against *xy*. These figures are the result of occasional, not systematic observation; but they show that the rule of preference expressed in the Praefatio is not to be interpreted strictly.

that page. Below this comes a collection of the indirect tradition, i.e. ancient passages in which the words of Plotinus on this page are quoted (preceded by "=") or paraphrased (preceded by "cf."). After this there is a collection of the passages to which Plotinus refers (preceded by "cf.") or which he quotes (preceded by "="). Occasionally, when the passage referred to is no longer extant, passages of similar content to it are cited, but mere parallels to Plotinus' words are not collected. Finally, immediately above the apparatus criticus those marginalia are printed which appear to have been derived from the archetype, but only those.

The volume is beautifully set and printed on excellent paper. I have observed no misprints at all in the text and none of any significance in the notes. On p. 118 in the second apparatus the note on I, vii, 1, 1-4¹² refers to "eth. Nic. A 8, 1098 b 14-16," which should presumably be A 6, 1098 a 14-16. On p. 262 the critical note on III, i, 6, 1 is "αὐτῶν xBJQ: αὐτῶν Ry." Since BRJ constitute x, x in this note must be a misprint, probably for w. On p. 317 in the critical note on III, iv, 6, 30 the closing parenthesis after "transpositum" is missing. On p. 321 in the critical note on III, v, 1, 58/59 the accent of δμῶς is missing. On p. 348 the reference on III, vi, 8, 11-12, "cf. Plat. Tim. 52 a 8", which is in the second apparatus (i.e. indirect tradition), belongs in the third apparatus (i.e. sources). On p. 393 in the critical note on III, vii, 13, 36 the symbol "A" has presumably dropped out after "αὐτῆς" and before the parenthesis. On p. 401 the critical note on III, viii, 5, 28 reads "οὕτως Jy: οὕτως wBR". Since "οὕτω" is printed in the text, the first "οὕτως" in the note is apparently a misprint for "οὕτω." On p. 406 in the critical note on III, viii, 9, 11 both "συνέζευκτο" and "συνέζευκται" are ascribed to J *simpliciter*. One J is certainly a misprint, probably for B, the MS of x not accounted for in the note.

¹² In this edition the *Enneads* are numbered by treatise and section in the traditional fashion. The lines of each section are numbered consecutively; and these line-numbers correspond very closely to those of Bréhier's edition. There is no division into paragraphs such as that adopted by Harder from Oppermann and followed by Cilento. It is to be hoped that all scholars will hereafter make their references to Plotinus by *Ennead*, treatise, section, and line of the edition of Henry and Schwyzer.

As Schwyzer himself once wrote,¹³ only one who has the MS material at his disposal can pass judgment on the merits of a critical edition. Since I am not in a position to compare the reports of Henry and Schwyzer with the MSS of the *Enneads*,¹⁴ I can only try to give a description of the text as they have constituted it; and this I think can be done most clearly and usefully by comparing it with the text most widely used in this country today, that of Bréhier in the "Budé Series." In making this comparison I have disregarded mere differences of orthography which do not affect the meaning of the words or the construction of the language, though even in these matters Henry and Schwyzer contrary to the practice of earlier editors have followed the MS tradition closely and have not tried to regularize Plotinus' usage.

Apart from these orthographical differences, in Porphyry's *Life of Plotinus* the text of Henry and Schwyzer differs from that of Bréhier in 78 places. In addition, in chapters 24-26 Henry and Schwyzer alone of recent editors print the *incipits* in the text; and after the *Life* they print the *Pinax*, which is omitted in all other editions, though Creuzer printed it in a note at the end of the *Life*. Where they differ from Bréhier's text they have either all the MS authority or the significant preponderance of it in their favor, and in eight of these places they follow the MSS of the *Life* or their preponderance against the MSS of the *Enneads*. They depart from the MSS in ten places, in nine of which they agree with Bréhier's text.¹⁵

¹³ *Gnomon*, XXI (1949), p. 64.

¹⁴ Consequently where I speak of "the readings of the MSS" or "MS authority" hereafter I do so on the basis of the reports of Henry and Schwyzer, the accuracy of which I cannot myself test.

¹⁵ The tenth is 16, 15, where they adopt Wilamowitz's emendation, "ὅλως," for "ὅπως" of the MSS which Bréhier, like Volkmann, deletes after Cobet. In 18, 23 for "ἐποίησεν" of the MSS they adopt with all editors from Creuzer on Dobler's "ἐποίησα" from a correction in C. and Marc. Gr. 241; but their own suggestion of "Ἀμέλιος (for "Ἀμέλιον" -MSS) . . . ἐποίησεν" is preferable to this. In view of their ordinary conservatism it is strange to see them in 8, 1 reject "μεταβαλεῖν" of all MSS, which Pugliese, Faggia, and Cilento retain, in favor of Dübner's "μεταλαβεῖν," adopted by Kirchhoff Müller, Volkmann, and Bréhier. Creuzer's note in defence of "μεταβαλεῖν" seems to be unexceptionable. Probably the *dis* affected Henry and Schwyzer; but "*dis* μεταβαλεῖν" is the same kind of illogical idiom as is "to rewrite it a second time" in English.

In the first three *Enneads*, to the best of my observation, the new edition differs from that of Bréhier in 1414 places,¹⁶ in 1243 of which Bréhier exhibits the same text as Volkmann. In five places where Bréhier has adopted an emendation Henry and Schwyzer dagger the passage.¹⁷ In 62 places they adopt emendations that are not to be found in Bréhier; 32 of these are their own and 30 have been adopted from other scholars. Of the former group of 32 eight are corrections already made in some MS¹⁸ or are drawn from the indirect tradition, and 12 others involve only changes of accent, breathing, or word-division. Of the latter group of 30 at least seven involve only changes of accent, breathing, or word-division. In 29 of these 62 passages Bréhier adopted a reading exhibited by all or some of the MSS; in the rest he printed emendations other than those adopted by Henry and Schwyzer. Besides these 62 deviations from the MSS, Henry and Schwyzer adopt 105 emendations which had already been adopted by Bréhier; of these, however, 33 are corrections already made in some MS¹⁹ or drawn from the indirect tradition, and 28 others involve only changes of accent, breathing, or word-division. Since in the first three *Enneads* the new editors admit that in 172 places all the MSS are in error, their confidence in the fidelity of our MSS to the archetype or of the archetype to Porphyry's edition may be

¹⁶ This does not take into account obvious misprints in Bréhier's text such as his "αὐτὸς" at I, viii, 7, 13, "ὁμοῖς" at II, ix, 7, 15, and "λέγειν" at III, vii, 3, 9. Here it should also be observed that Henry and Schwyzer do not print at II, iii, 5, 21 the passage (II, iii, 5, 21-41 [Bréhier]) which all earlier editors, following the example of Ficino, have transferred to this place but print it in brackets as II, iii, 12, 12-32 at the place where it appears in the MSS. They admit that it has to do with chapter 5 but refuse to decide whether it was written by Plotinus or by some adherent of astrology. After I, ix they print Elias, *Prolegomena Philosophiae*, pp. 15, 23-16, 2 (Busse), which according to Henry is a fragment of the non-Porphyrean recension; but they maintain that I, ix as it exists in the MSS is both genuine and intact.

¹⁷ I, ii, 4, 27/28; II, iv, 16, 14; II, vii, 2, 16 (the reading of *F* adopted by Bréhier is Ficino's conjecture); II, ix, 18, 13/14; III, vii, 13, 50.

¹⁸ At least one of these, however, is in origin a conjecture of Ficino's (III, vi, 11, 30).

¹⁹ Five of these, however, are in reality conjectures of Ficino's (i.e. *A*² or *F*²).

said to be reasonably qualified; but the fact remains that in well over 1300 places their text represents a rehabilitation of the MS tradition against the increasing disrespect of earlier editors.

In part this rehabilitation is the result simply of the exhaustive and exact knowledge of the MSS that Henry and Schwyzer have acquired and systematized. In *Ennead* III, vi, 4, 14, for example, a bothersome passage has been made clear by recovery of the MS readings of the main families.²⁰ At II, viii, 1, 45 Bréhier printed "<τῆς> ὀψέως" as Volkmann's conjecture; and Cilento also says that Volkmann "prefixed the article, which is perhaps necessary." The fact now appears to be that "τῆς ὀψέως" is the reading of all the MSS. Creuzer had printed it without any annotation; Kirchhoff deleted the phrase, and Müller "replaced" "ὀψέως" alone without mentioning "τῆς." Volkmann then, thinking that Müller's text was the reading of the MSS, "conjectured" "<τῆς>." A third of many possible examples is the reading in chapter 7, 3-5 of Porphyry's *Life of Plotinus*. Here Bréhier printed "αὐτὸν . . . αὐτῷ," ascribing this emendation to Cobet and reporting "αὐτὸν . . . αὐτῷ" as the reading of the MSS. In this he followed Volkmann's example. Creuzer, Kirchhoff, and Müller had printed "αὐτὸν . . . αὐτῷ" without any remark as if this were the reading of the MSS; and, misled by this, Cilento (I, pp. 288 f.) wrote: "I have restored from the MSS αὐτὸν . . . αὐτῷ in place of αὐτὸν . . . αὐτῷ proposed by Cobet . . ." It now appears, however, that "Cobet's emendation" is in fact the MS tradition;²¹ and there can no longer be any doubt that according to Porphyry it was Plotinus who preferred to call Amelius "Amerius", and not Amelius himself.

This last example illustrates the effect that an apparently trivial alteration in the text may have. It also raises the question whether the conservatism of the new edition is in all cases

²⁰ The "ἐκτός" of w was read by all editors and was translated even by Harder (unabhängig) and Cilento ("indipendentemente") in a way both forced and incomprehensible. The correct reading adopted by Henry and Schwyzer from all other MSS is simply "ἐκ."

²¹ According to the apparatus of Henry and Schwyzer the only variant of "αὐτὸν . . . αὐτῷ" is "αὐτὸν" for the former written as a correction in A.

justified, for it is possible to contend that sense and usage should be preferred even to the consensus of the MSS. In at least 198 places the new text differs from that of Bréhier only in reading the intensive (i.e. some form of "αὐτοῦ") where Bréhier gives the analogous form of the reflexive pronoun (i.e. a form of "αὐτῷ").²³ In most of these cases the new editors have all the MSS or a significant preponderance of them in their favor; but in the mere matter of a breathing surely no MS or group of MSS can be trusted against sense and usage, and Henry and Schwyzer themselves abandon the MSS in such matters often enough to cast doubt upon the infallibility of the tradition in other cases.²⁵ Where either the intensive or the reflexive could conceivably stand, it is reasonable to follow the consensus of the MSS; but in many, if not most, of the places where Henry and Schwyzer "restore" the intensive it is clear that the reflexive is required.²⁴ In a good many other passages also

²³ In III, II, 7, 32, on the other hand, Henry and Schwyzer preserve "ἐαυτῶν" of the MSS where Bréhier adopts Kirchhoff's emendation, "αὐτῶν."

²⁵ Not to mention many other examples, Henry and Schwyzer read "αὐτῆς" in I, I, 6, 5 where the MSS have "αὐτῇ"; "αὐτῷ" with R^o in I, II, 5, 31 where Porphyry has "ἐαυτῷ" but all the MSS have either "αὐτῷ" or "αὐτῶ"; "ἡ" in II, VII, 2, 7 where the MSS have "ἥ"; "οὐ" in II, IX, 17, 41 where the MSS have "οὐ"; "αὐτῷ" in III, II, 2, 6 where the MSS have "αὐτῶ"; "ἡ" in III, II, 14, 26 where the MSS have "ἥ"; "αὐτῶν" in III, VI, 6, 44 where the MSS have "αὐτῶ"; "αὐτῷ . . . αὐτῷ" in III, VII, 11, 25 and 26 where the MSS have "αὐτῶ . . . αὐτῶ."

²⁴ There is room here to cite only a few examples. In III, VI, 6, 42 Henry and Schwyzer write "αὐταρκέστερα αὐτοῖς" with the MSS, though in III, II, 2, 6 they adopt the "ἀρκεῖ αὐτῷ" of earlier editors where all the MSS have "αὐτῶ." In III, VI, 13, 10 they write "μηδέποτε αὐτῆς ἐξισταμένην," though RSM have "αὐτῆς," which is necessary; cf. III, VI, 11, 36/37 ("οὐ γὰρ ἐξίσταται ἐαυτῆς") and III, VI, 10, 18-19 "ἡ . . . αὐτῆς ἐξιστάσθαι ἢ μὴ ἐξισταμένην αὐτῆς . . ."). In II, II, 1, 27 they write "κύκλω κινεῖσθαι ἐξ αὐτοῦ" with the MSS, though A^o has "αὐτοῦ," which is necessary and supported by III, I, 2, 24/25 where Henry and Schwyzer write "κινουμένων ἐκάστων οὐκ ἐξ αὐτῶν," although A^oEBQ have "αὐτῶν." They adopt "τῇ αὐτῆς φύσει" in II, IV, 8, 7 and III, VI, 13, 9, though in the former place M and in the latter RJy have the necessary "αὐτῆς"; yet in II, IV, 8, 14 they print "τῇ αὐτῆς φύσει," though EBUS^oQ have "αὐτῆς" and in III, VI, 14, 23 they print "τῇ αὐτοῦ φύσει" despite the erroneous "αὐτοῦ" of wBJQ. In III, VIII, 3, 2 they adopt "ἐν αὐτῷ μένων,"

the conservatism of the new editors countenances a degree of unintelligibility that many scholars will feel exceeds even what can be generously granted to Plotinus' style and method of composition. By way of example I call attention to a few of these:

I, v, 7, 26: "οὐδὲ τὸ χροικὸν δὲ δει τῷ εἶναι," the reading of the MSS preserved by Henry and Schwyzer is surely wrong in the context. Some emendation is necessary; and that of Kirchhoff, adopted by all subsequent editors and by Harder and Cilento, makes sense of the passage.

I, vi, 7, 34: Henry and Schwyzer retain "οὔτοι" of the MSS, though earlier Henry had himself suggested "πάρτοι," which Cilento accepted. The passage clamors for Vitranga's "ἐρτοι", and it should be observed that in III, viii, 9, 4 Henry and Schwyzer adopt Kirchhoff's "ἐρτοι" where all MSS have "οὔτοι".

I, viii, 4, 3-4: Henry and Schwyzer adopt "ῥοπά τε . . . ἀτακτοί" of BJyQ, where wR have "ῥθοπά τε . . . ἀτακτοί". The following "ἰμπερία" shows that the subject of "ᾠθεῖται" (i.e. "σώματα") runs through, so that "ῥοπά τε . . . ἀτακτοί" cannot be understood as an independent clause. Emendation is necessary.

II, iii, 11, 2: Henry and Schwyzer keep "ἐστίν" of the MSS, though Kirchhoff's change to "εἰσιν" is required by sense, grammar, and the following "ἐρχεται". Obviously "εἰσιν" was misread as "ἐστίν", and this was changed to "ἐστίν" because of the singular subject; and this "emendation" was earlier than all of our MSS.

III, ii, 8, 40: Henry and Schwyzer retain "οὐδ' ἀνακταίῃ δέ" of the MSS. Henry had already defended this reading in *États*, p. 150; and Cilento (II, p. 378) protests against this conservatism. Kirchhoff's "δεῖ" for "δέ" is almost certainly right.

III, vi, 17, 15-16: "... μετὰ τὸ τι μέγα . . . καὶ τὸ μὲν αὐτό . . ." This reading of all MSS (save that J^{ac}Q have "αὐτὸς" for "αὐτό") is retained by Henry and Schwyzer, who nevertheless suggest in the apparatus the emendation: . . . "μέγα, τὸ τι μέγα" for the first phrase. This with Vitranga's emendation, "καὶ τὸ μέγα αὐτό" for the second phrase is so obviously correct that it approaches obscurantism to print in the text the senseless readings of the MSS.

though ARJ have the necessary reflexive which Henry and Schwyzer do adopt in the same phrase at III, vii, 3, 20/21 ("μένοντες . . . ἐν αὐτῷ"), where wRJMQ have "αὐτῷ," and at III, viii, 4, 26 ("ἐν αὐτῷ . . . μένεις"), where A^{ac}EUSN have the erroneous "αὐτῷ." There are scores of such other inconsistencies in what might be called "the conservation of the intensive" by Henry and Schwyzer.

In all these passages and many more, too complicated for discussion here, what really matters, however, is not that a reader may disagree with the text chosen by the editors but that they in their apparatus have made available to him for the first time the exhaustive and reliable information from which alone it is possible to form a critical opinion of the text.

Both this apparatus criticus and that which gives the indirect tradition leave practically nothing to be desired.²⁵ The same cannot be said for the apparatus of Plotinus' quotations and references, which, though usually correct so far as it goes, is anything but exhaustive, passing over in silence as it does at least a hundred easily identifiable references or reminiscences, of which I have room here to give only a few of the typical and obvious examples in the first *Ennead*:

I, i, 5, 9-11: Cf. Plato, *Philebus* 33 D - 34 A; *Timaeus* 43 C and 45 D (references to these passages should be made at I, i, 6, 10-12 and I, iv, 2, 3-4 also).

I, ii, 4, 24-25: Cf. Plato, *Theaetetus* 193 C 3-4 (cf. 192 A and 194 B).

I, ii, 6, 13: Cf. Plato, *Republic* 490 B 2-7 and *Timaeus* 37 A 6; Aristotle, *Metaphysics* 1072 B 20-21; Speusippus *apud* Proclus, *In Primum Euclidis Librum*, p. 179, 18 (Friedlein); Theophrastus, *Metaph.* 9 B 13-16.

I, iii, 3, 5-10: The whole passage is derived from Plato, *Republic* VII. With lines 5-7 cf. *Republic* 525 D 5-8 and 527 B 9-11; with line 7 (φιλομαθής ὢν) cf. *Republic* 376 B 8-9; with lines 8-10 cf. *Republic* 534 E.

²⁵ The editors do not always indicate that variants which they reject have been adopted by earlier editors, and there are also a few other omissions in the apparatus criticus. In *Vita* 11, 18 Creuzer's suggestion, "τοῦ δέ" for "τοῦ τε," is not mentioned, though Cilento adopted it. At I, iii, 2, 12 Müller's "ἐγγίναται," suggested by Ficino's "quomodo adveniat" and adopted by Cilento, is not recorded; nor is Creuzer's "οὐ καὶ" (i.e. "[καὶ] οὐ καὶ") in I, viii, 14, 35-36. At I, iii, 3, 8 Henry and Schwyzer say "<τὸ> φύσει suspic. Cilento" and do not notice that the suggestion had been made by Creuzer (III, p. 15 *sub fin.*).

The apparatus of the indirect tradition can also be supplemented in places, as for example: I, i, 8, 15-18 cf. Themistius, *De Anima*, p. 25, 34-36 (Heinze); I, ii, 2, 5-10 cf. Proclus, *In Parmenidem*, p. 912, 19-38 (Cousin²); I, ii, 6, 13 cf. Iamblichus, *De Comm. Math. Scientia*, p. 33, 19-20 (Festa); I, iii, 5, 8-10 (where in apparatus of sources add: cf. Alexander, *Anal. Prior.*, p. 1, 7-9 and *Topica*, p. 74, 29 ff.) cf. Ammonius, *Anal. Prior.*, p. 8, 20-25 (Wallies); and I, iii, 5, 10-12 cf. Ammonius, *ibid.*, p. 11, 1-20.

I, III, 4, 1-15: For line 5 Henry and Schwyzer refer to Plato, *Sophist* 242 C 5-6; but this is not even parallel. The main source of lines 1-6 is probably *Sophist* 253 B-D but contaminated with other Platonic passages: e.g. with lines 5-6 (τὰ μὴ ὄντα αὖ, ἕτερα δὲ ὄντων) cf. *Sophist* 257 B 3 ff.; with line 6 (αὐτὰ καὶ περὶ ἀγαθοῦ διαλέγουται) cf. *Republic* 532 A-B. For lines 8-9 (ἐπιστήμη . . . αὐτὸ δόξῃ) Henry and Schwyzer refer to *Republic* 534 C 6, for line 11 (ἐν . . . ἀληθείας πεδίῳ) to *Phaedrus* 248 B 6, and for line 12 (διαίρεσις) to *Phaedrus* 265 E — 266 B. In the last passage Plotinus may have had in mind *Sophist* 253 C as well; certainly line 14 (καὶ ἐπὶ τὰ πρῶτα γένη) refers to *Sophist* 254 D and line 15 (πλείκουσα) to *Sophist* 259 E 5-6. Lines 9-10 are a reminiscence of *Phaedo* 79 D.

I, iv, 10, 20: Cf. Aristotle, *De Anima* 431 A 16-17 and 432 A 12-14.

I, iv, 15, 19-20: Cf. Plato, *Phaedo* 77 E.

I, vi, 9, 1-6: With lines 1-2 cf. Plato, *Republic* 515 E — 516 A and with lines 3-6 cf. *Symposium* 210 B — C, which is here used to interpret the former passage.

I, viii, 3, 4-9: With lines 4-5 (οὐκ εἰδὲς τι τοῦ μὴ ὄντος) cf. Plato, *Sophist* 258 D 6; with lines 6-7 cf. *Sophist* 257 B 3-4 and 258 E — 259 A; with lines 7-8 cf. *Sophist* 255 E — 256 E; with lines 8-9 cf. *Sophist* 240 B 12-13.

I, viii, 6, 28-29: Cf. Aristotle, *Categories* 3 B 24-25.

I, viii, 6, 36-37: Cf. Aristotle, *Categories* 14 A 15-16.

I, viii, 6, 40-41: Cf. Aristotle, *Categories* 6 A 17 and *Eth. Nic.* 1108 B 33-34.

I, viii, 7, 7: Cf. Plato, *Timaeus* 53 B 1-5 (not *Politicus* 273 D 4 as Henry and Schwyzer suggest in their apparatus criticus).

I, viii, 8, 3-4: Cf. Plato, *Timaeus* 86 E 1-2.

I, viii, 13, 24-25: Cf. Plato, *Republic* 533 D 1-3.

The incompleteness of this apparatus does not, of course, impair the essential value of the edition. All students of Plotinus must feel unqualified gratitude for having had put at their disposal at last a truly critical edition of the first three *Enneads* and must hope that their gratitude may lend the editors strength to bring to successful completion the arduous task that they have so auspiciously begun.

Scarcely more than a year before the publication of this edition by Henry and Schwyzer there appeared the final volume

of a new Italian translation of Plotinus by Vincenzo Cilento.²⁶ Cilento did not simply translate one of the published texts but tried conscientiously to make his translation represent the archetype of the extant MSS in so far as he could restore that archetype from the published reports of the MSS. With his translation of the *Enneads* and Porphyry's *Life of Plotinus* is published a "critical commentary" in which he discusses the significant variants in the textual tradition and in each case seeks to justify the reading that he has adopted for translation. Besides Henry's earlier studies of the direct and indirect traditions, of which Cilento made full use and which had convinced him of the fidelity of Porphyry's edition to the Plotinian original,²⁷ he had at his disposal selections of Schwyzer's collations for certain sections. Even this and a careful study of earlier editions did not suffice, however, to make possible an accurate report of the MSS; and a comparison of his "commentary" with the apparatus of Henry and Schwyzer shows clearly how indispensable for a critical opinion of the text are their exhaustive collations and reports.²⁸ By the appearance of their ap-

²⁶ *Plotino: Enneadi. Prima Versione Integra et Commentario Critico* di Vincenzo Cilento. Bari, Laterza e Figli, Volume Primo, 1947; Volume Secundo, 1948; Volume Terzo, Parte I, 1949; Volume Terzo, Parte II, 1949.

²⁷ In some cases Cilento's conservatism exceeds even that of Henry and Schwyzer. So, for example, in the following passages he keeps the reading of the MSS where they adopt an emendation: — *Vita* 22, 40; *Enneads* I, i, 2, 27; I, ii, 7, 14; II, ix, 9, 50; II, ix, 16, 45.

²⁸ In the note on *Vita* 8, 11 (= 44 <14, 20>, I, p. 291 [Cilento]) "*μεταβαλειν*" is an unfortunate misprint for "*μεταλαβειν*"; but even with this correction "gli Edd. tutti" is inexact, since Perna, Creuzer, and Pugliese read "*μεταβάλλειν*." I, viii, 2, 24 = I, p. 37 on 11 <100, 27>: not all the MSS have "*περι*" as Cilento says; γ has "*ἐρι*," which Henry and Schwyzer adopt. I, viii, 14, 7 = I, p. 386 on 91 <112, 28>: "*εὐλαβέων . . . mss.*" is wrong, for all but A have "*εὐλαβέων*." I, viii, 15, 20 = I, p. 387 on 106 <115, 8>: Cilento defends "*ἐξωθεν* del mss.," but all the MSS have *ἐξω*," which is not an emendation of Volkmann's. II, v, 4, 10 = I, p. 432 on 26 <170, 30>: not all MSS but none has *ἡ*, which is the reading of Perna and Creuzer. II, vi, 1, 50 = I, p. 435 on 9 <174, 13>: all MSS have "*οὐσιων*," not the "*οὐσίας*" that Cilento reports. II, viii, 1, 30-31 = I, p. 442 on 7 <182, 13>: Cilento writes: "*τὸ εἶδος ἐστι mss.*"; but only A has this reading. II, ix, 1, 46 = I, p. 446 on 11 <185, 26>:

paratus his commentary on the first three *Enneads* has been rendered obsolete, though not all of his critical notes have lost their value; but until their edition of *Enneads* IV-VI is published Cilento's commentary on that part of the text must be taken into careful account by all students of Plotinus. The commentary is almost exclusively textual and contains no exegesis save occasionally to the extent necessary to defend the choice of text. Even Plotinus' quotations and references are only rarely identified, more rarely in fact than they are by Henry and Schwyzer, although Cilento does print at the end of his work (III, 2, pp. 251-315) a translation of some selected passages of the Presocratics, Plato, Aristotle, the Stoics, Epicurus, and Numenius with marginal references to a few of the places where Plotinus refers to them.

Cilento's translation is ordinarily far more accurate in rendering both the meaning and the nuances of the Greek text than is Bréhier's. He had the advantage of having at his disposal the excellent German translation by Richard Harder, of which he obviously made full and intelligent use; and in countless places his interpretation and Harder's is correct where

All the MSS have not "ἐχομεν" but "ἐχοιεν." II, ix, 16, 54 = I, p. 456 on 161 <208, 15>: not all the MSS have "λαμβάνειν" but only w; the rest have "λαμβάνει." III, iii, 4, 2 = II, p. 393 on 21 <254, 17>: the "ταῦτα" which Cilento ascribes to the MSS is in USQ only, while wxM have the "ταύτα" that he ascribes to Kirchhoff. This should suffice to exemplify the errors which Cilento was almost bound to make for lack of such collations as those of Henry and Schwyzer. In addition, however, Cilento sometimes errs concerning facts available to him. For example, I, vi, 2, 25 = I, p. 367 on 12 <87, 17>: "ἐαυτῷ" was not "universalmente accettata," for Bréhier did not accept it and Harder apparently did not translate it. At II, i, 8, 8 = I, p. 397 on 62 <128, 28> Cilento makes a similar misstatement concerning the emendation "πῶρ," as he does also in his next note on 62 <128, 31> concerning the excision of "τοῦτο" in II, i, 8, 11. The form of the title of II, vi which he ascribes (I, p. 434) to Müller alone was printed by Creuzer before him. The commentary is also silent at times where explanation of the reading is required. So, for example, Cilento translates II, iv, 13, 22 and II, vi, 1, 38 without any negative and without any comment, though in the latter passage all MSS have "οὐ" (which all editors delete) and in the former all MSS save B have "οὐ."

Bréhier's misrepresents the meaning of the Greek.²⁹ At times he follows Harder in an erroneous interpretation;³⁰ but he is independent enough to be right occasionally where Harder is wrong or uncertain³¹ and to depart from Harder's interpretation sometimes when it is quite correct.³² He expands the text in such a way as to make intelligible without commentary the compendious and often cryptic expression of the original; and though this method produces a tone and a style entirely different from those of Plotinus, it does usually succeed in achieving clarity without falsifying the meaning or glozing over difficulties with a specious fluency. That the result is often an expanded paraphrase rather than a strict translation of Plotinus' words will make it the more useful both to Greekless readers and to students of the difficult original.

The second part of volume III, in which the critical commentary of *Enneads* V and VI is printed, contains besides a chronological synopsis of the treatises and a number of indices to the translation and commentary a critical bibliography of Plotinian studies prepared by Bert Mariën³³ and edited by Cilento. This bibliography, which with its indices and introduction fills 260 pages, lists not only books and articles dealing with all the various aspects of the study of Plotinus but also

²⁹ A few examples in the first *Ennead* are I, ii, 3, 24-25; I, iii, 6, 3-4; I, iv, 2, 54-55; I, iv, 10, 19-21; I, vi, 6, 18; I, viii, 6, 21; I, viii, 8, 35-37.

³⁰ For example: I, i, 11, 7, where he adopts Harder's conjecture, "πρὸς α'" for "δρα" (not mentioned by Henry and Schwyzer); I, i, 12, 21-23, where Bréhier is substantially correct; I, vi, 5, 31, where Ficino, Bouillet, and Bréhier understood the text correctly. A particularly strange example is III, ii, 14, 12-13 where Cilento's translation (II, p. 35) agrees with Harder's, though in his note (II, p. 384 on 112 <242, 8-9>) he recognizes that Harder "expunged the negation" and appears to approve the translations of Ficino and Bréhier, which are in fact correct.

³¹ For example in I, i, 4, 18; II, ii, 9, 18-19.

³² For example in I, ii, 4, 25-27; I, iii, 4, 4; I, iii, 4, 18-20; I, iv, 7, 20-21; I, vi, 6, 29-30. An especially interesting example is provided by III, iii, 6, 16 where Harder correctly translated the "ἡ σοφοῦ τῶος καὶ θελοῦ" which Cilento, Bréhier, Mackenna, and Bouillet all misunderstood but where his German idiom may have confused Cilento in the same way as the Greek did.

³³ An important note by Bert Mariën on IV, viii, 2, 4 ff. is published by Cilento in his commentary (II, pp. 577-579).

gives references to the reviews of the books mentioned and succinct descriptions of the content and value of most of the writings listed. This work of selfless scholarship deserves the gratitude of all students of ancient philosophy, for whom it will often save many hours of preparatory searching and whom it will protect against many blunders of omission.²⁴

The quality of Cilento's translation and of Mariën's bibliography inspires the hope that when Henry and Schwyzer have completed their edition Cilento may in the new light thrown upon the text publish a revised edition of his work with Mariën's bibliography brought up to date.

²⁴ For corrections of some of the errors and oversights in this bibliography cf. P. Merlan, *Philosophical Review*, LXI (1952), pp. 415-417.

THE SO-CALLED FRAGMENT OF HIPPOLYTUS, *περὶ ᾗδου*

IN HIS Preface to *Curious Discourses*, I, vi and vii, Thomas Hearne refers to the Baroccian collection of Greek manuscripts and remarks that a specimen of this collection, "a fragment of Josephus, or Caius, or rather Hippolytus's book *περὶ τῆς τοῦ παντὸς αἰτίας*," he intends to print. This fragment is printed in Appendix IV of the work, and, since it presents a number of variants to the text as printed in the Gebhardt and Harnack *Texte und Untersuchungen zur Geschichte der altchristlichen Literatur* as well as a concluding section not mentioned by these editors, I have, at the invitation of Professor Max Radin, who came across this curiosity and generously put it in my hands, made a transcript of the variants which I here present. I have referred by line to the Gebhardt and Harnack text, V (Neue Folge), No. 353, 137.

The editor of this fragment seems to have been Dr. Gerard Langbaine, not Hearne himself, from whose text the antiquarian "transcribed it many years ago in my collections." (Hearne wrote this March 26, 1720.) The final section, especially, should be a distinct addition to the present knowledge of this early treatise on "Hell."

TITLE: Ἰώσηπος ἐκ τοῦ λόγου ἐπιγεγραμμένου κατὰ Πλάτωνος περὶ τῆς τοῦ παντὸς αἰτίας. Περὶ τόπου ἐν ᾧ συνέχονται ψυχαὶ δικαίων τε καὶ ἀδίκων¹

1. τόπος for λόγος; λόγος quoted from Hoeschellius.
περὶ τόπου for περὶ δὲ ᾗδου.
2. ἀναγκαῖον εἰπεῖν omitted; quoted from Hoeschellius.
5. ἐν τούτῳ τῷ χωρίῳ after τυγχάνειν.
6. τοῦτο τὸ χωρίον omitted.
δ before ὥς.
8. τρόπον for τόπων.
11. ἐσκεύασται for ἐσκευάσθαι.
12. παρὰ τοῦ θεοῦ omitted. ὑπὸ θεοῦ quoted from Hoeschellius.
τιμία for μία; μία quoted from Hoeschellius.
13. προσηνεύεσθαι for προσενεχθῆ; προσενεχθῆη quoted from Hoeschellius.

¹ The text begins with δ ᾗδης (l. 3). The figures on the left refer to line numbers.

16. αἷτοι for αἵτιοι.
προσκριβῶσιν for προκριβῶσιν.
17. ἀνεκλιπεστάτου for ἀνεκλείπτου.
18. ῥ for ὥς.
19. ἀδικοι for δίκαιοι.
23. κατόπον for κατὰ τόπον.
27. τῇ omitted; quoted from Hoeschellius.
ὀρωμένων omitted.
29. καύσον for καύσων.
30. πατέρον for πατέρων.
32. βιωτήν for βίωσιν.
κλητίζομεν ὀνομαστί for ὀνόματι κλητίζομεν.
τούτῳ δὲ ὀνομα κυκλήσκομεν quoted from Hoeschellius.
33. εἰς inserted before ἀριστερά.
36. ἐπιτελοῦντες for ἐπιγελῶντες.
37. καὶ omitted before εἰς.
μέρη omitted.
38. οἱ for ἧς.
39. ὄντες omitted.
40. ταύτης for αὐτῆς beginning a new sentence.
43. οὐ for οὗτοι.
44. χορὸν for χώρον.
45. μή for μήτε.
47. αἱ omitted before ψυχαί.
49. ποιησόμενος for ποιησάμενος.
50. Period after ἀνιστῶν.
ἀεὶ omitted.
Comma after Ἕλληνες.
51. Note on γενητήν: "Ita uterque Cod. et MS et impress. mendose tamen. Legendum ἀγεννητον. Plato enim in Phaedro (unde hoc desumptum) animam docet αὐτοκίνητον εἶναι et proinde concludit: ἐξ ἀνάγκης ἀγεννητον τε καὶ ἀθάνατον ἡ ψυχὴ ἂν εἴη. Atque ideo forsan pro χρόνῳ hic legendum φαίδρω."
53. ὥς before καὶ which is bracketed with the note: "sic Hoesch. sed omittit MS."
55. γὰρ after οὐ omitted.
56. ῥηθήσεται for ῥηθήσεται.
μὲν after ἡμεῖς omitted.
57. καὶ after γὰρ omitted.
58. Note on ἀπόλλυται: "Sic Hoesch. MS vero ἀπόλλυτε."
Note on γῇ: ὑποδεχομένη ἡ γῆ H.
59. πιαυόμενα for πιαυομένου with note: "Hoesch: γενόμενα."
60. συμπλεκόμενα for συμπλεκομένου.

61. *καὶ* omitted before *κελεύσματος* and *δέ* inserted thereafter. Note: "In MS Hoesch. *κελεύσιμιν τι*."
63. *συμπαγῇ* for *γῇ συμμιγῇ*.
67. *ἀνιστάμενον* for *φθειρόμενον*.
68. *καὶ* for *ὥς* with note: "Ως MS."
καὶ omitted before *τοῦτο*.
73. *πάθοις* for *πάθους*.
74. Note on *ἐτελεύτων*: "Sic Hoesch. At MS *ἐτελεύτον*."
καὶ ὅποια . . . ἐπενδύσονται omitted.
78. *κρίσιν πᾶσαν* for *πᾶσαν κρίσιν*.
79. Note on *κριτῆς*: "MS *κριτήρ*."
80. *θεὸν ἐνανθρωπήσαντα* omitted.
83. *ἐπιζητοῦνταις* for *ἐπιζητοῦντας*.
88. *ἐπάγει* before *τὸ δίκαιον*.
89. *παρασχόντος* for *παρέχοντος*.
91. *ἀπονείμαντος* for *ἀπονέμοντος* with note: "Sic Hoesch. At MS *ἀπονήμαντος*."
93. *διαφθείρον* for *διαφθείρων*.
ἀπαύστῳ for *ἀπαύστως* with note: "Sic H. In MS *ἀπαύστως*."
δὲ ὁδύνῃ for *ὁδύνῃν*.
99. *ὑπνος* for *πόνος*.
101. Note on *δρόμῳ*: "Sic Hoesch. Sed MS *δρόμον*."
102. *εὐγνωστων* for *εὐγνωστον*.
104. Note on *ἐπάγουσα*: "Sic H. At MS *ἀπάγουσα*."
γῆν for *γῇ*.
- 106-7. *οὐδὲ . . . ἀνάρριθμος* omitted.
108. *αὐλή* for *πύλη*.
111. *ἰχνού* for *ἰχνους* with note: "Ισ. *ἰχνεος*."
112. *ἀναβάσεως* omitted with note: "H. *τῆς ἀναβάσεως ἢ ὁδός*."
113. *αὐτοματί* for *αὐτόματος* with note: "H. : *αὐτομάτη*."
114. *εἰ* for *ἦ* with note: "Pro *εἰ* vero in MS est *ἦ*."
115. *γένησις* for *γένεσις*.
ζώων omitted.
ἐκβρασσάμενη for *ἐκβρασσομένη*.
116. *ἄνθρωπος* for *ἀνθρώποις*.
γεννᾷ for *γέννα*.
117. *δικαίος* for *δικαίους*.
118. Here occurs the note: "quae sequuntur primo ad fidem et formam MS¹ codicis (mendosi satis) expressimus. . . . Deinde emendationem nostram (si forte) subjecimus." I give his MS readings; his corrections only where they differ from the Gebhardt-Harnack text.

- πνεμασι for πνεύμασι.
 τε after θεοῦ omitted.
 λόγου for λόγῳ.
 ὡς for δι.
 119. χορὸν for χορὸς.
 ἀφθάρτως for ἀφθαρτος.
 120. διαμένει (διαμένειν Ed.).
 ὕμῳ for ὕμῳ (ὕμνουντα Ed.).
 πραγόμενον for προαγόμενον (προσαγόμενον Ed.).
 121. ἐν βίῳ omitted. (ἐν τῷ βίῳ supplied by Ed. who omits τοῦ after τῆς.)
 συνοις for σὺν οἷς.
 122. ἀδιάληπτον for ἀδιάλειπτον.
 καὶ αὐτὴ ἐλευθερωθεῖσα omitted.
 (ἀπὸ τῆς φθορᾶς also omitted by Ed.)
 123. διαυγῇ for διαυγῇ (δι' αὐγῆς Ed.).
 τε omitted.
 καθαῶ πνεύματος for καθαῶ πνεύματι (καθαροῦ πνεύματος Ed.).
 124. δεσμος συσχεθήσεται for δεσμοῦ συσχεθήσεται (δέσμοις συσχεθήσεται Ed.).
 125. ἀλλὰ ἐλευθερίαζῶσα (ἀλλ' ἐν ἐλευθερίᾳ ζῶσα Ed.).
 τοὺς for τοῖς (τοῖς Ed.).
 126. δουλίας for δουλείας.
 127. αἰνέση for αἰνέσει.
 τούτους for τούτοις (τοιούτους connected with preceding Ed.).
 πίσθεντες for πεισθέντες.
 128. καταλείψεται for καταλείψετε (καταλείψετε Ed.).
 ἐπιγενοὺς for ἐπιγεῖον.
 129. χρημάτων σποροῦ for χρηματεμπόρου (χρηματοποιοῦ Ed.).
 130. πλανησοὶ κωητε for πλανῆν συνώσητε (πλάνης οἶμον ὠθήητε Ed.).
 131. καὶ θεοῦ καὶ λόγοις for καὶ θεολόγοις (καὶ δέου λόγου Ed.).
 εὐχειρίσαντες for ἐγχειρήσαντες (ἐγχειρίσαντες Ed.).
 132. πιστεύσεται for πιστεύσητε.
 ἴσεσθαι for ἴσεσθε.
 133. τεύξασθαι for τεύξεσθε (ἐντεύξεσθε Ed.).
 134. ὀψεσθαι for ὀψεσθε.
 φανερώς (kept by Ed. and taken with the preceding) for φανερώσει.
 135. γὰρ before θεός omitted. Here in MS occurs an erasure (καὶ γνῶσεσθε [omitting θεός] Ed.) a MS (δσα Ed.).
 137. ἡτοίμασεν (retained by Ed.) for ἡτοίμασεν.

The following is not included in the Gebhardt-Harnack text. The MS readings are here given with editor's corrections in parentheses as before.

ἐφοις (ἐφ' οἷς Ed.) ἀνενρω (ἀν εἴρω Ed.) ὑμᾶς ἐπὶ τούτοις κρινῶ παρεκαστα (παρ' ἕκαστα Ed.) βοατο (βοᾷ τὸ Ed.) τέλος πάντων. ὥστε καὶ (omitted by Ed.) τῷ (τῷ Ed.) τα (τε Ed.) εὖ πεποιηκότι τὸν βίον λήξαντος (λέξαντος Ed.) δὲ τοῦ τέλους (τέλους Ed.) ἐξόκηλαν τη (ἐξοκήλαντι Ed.) πρὸς κακίαν ἀνοητοὶ (ἀνόνητοι Ed.) οἱ πρόσθε πόνοι ἐπὶ τῇ καταστροφῇ τοῦ δράματος ἐξάθλω γενομένων τότε (τῷ τε Ed.) χειρὸν καὶ ἐπισεσυρμένως βιώσαντι πρότερον ἔστιν ὕστερον μετανοήσαντι πολλοῦ χρόνου πολιτείαν πονηρὰν ἐκνικῆσαι τῷ μετὰ τὴν μετάνοιαν χρόνῳ. ἀκριβείας δὲ δεῖται πολλῆς ὑπερ (ὥσπερ Ed.) τῆς (τοῖς Ed.) μακρὰν (μακρᾷ Ed.) οὐσῶ (νόσῳ Ed.) πεποιηκόσι σώμασι διαίτης χρῆα (χρεῖα Ed.) καὶ προσοχῆς πλείονος. ἔστιν δυνατόν (ἔστι μὲν ἀδύνατον Ed.) γὰρ ἴσως ἀθρόως ἀποκόψαι παθῆς (πάθοις Ed.) τροφ (τροφὴν Ed.) ἀλλὰ μετὰ (μὲν Ed.) θεοῦ δυνάμει καὶ ἀνθρώ (ἀνθρώπων Ed.) καισίας (ικεσίας Ed.) καὶ ἀδελφῶν βοηθείας καὶ εὐλικρινοῦς μετανοίας καὶ συνεχῆς (συνεχοῦς Ed.) μελέτης κατορθοῦται. καλὸν μὲν τὸ μὴ ἀμαρτάνειν, ἀγαθὸν δὲ καὶ τὸ ἀμαρτάνοντα μετανοεῖν. ὥσπερ ἄριστον τὸ ὑγιαίνειν ἀεὶ, καλὸν δὲ καὶ τὸ ἀνασφάλαι μετὰ νόσον.

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